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D STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION

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HEARINGS

BEFORE THE

COMMITTEE ON COMMERCE
UNITED STATES SENATE

SIXTY-FIFTH CONGRESS

SECOND SESSION

ON

S. RES. 170

DIRECTING THE COMMITTEE ON COMMERCE TO INVESTIGATE ALL MATTERS CONNECTED WITH THE BUILDING OF MERCHANT VESSELS UNDER THE DIRECTION OF THE UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION AND REPORT ITS FINDINGS TO THE SENATE, TOGETHER WITH ITS RECOMMENDATIONS THEREON

FRIDAY, DECEMBER 21, 1917

Printed for the use of the Committee on Commerce

PART 1

U.S. Congress Senate
Committee on Commerce

WASHINGTON
GOVERNMENT PRINTING OFFICE
1918

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TABLE OF CONTENTS.

Page.

2 820

19

UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.

FRIDAY, DECEMBER 21, 1917.

UNITED STATES SENATE,
COMMITTEE ON COMMERCE,
Washington, D. C.

The committee met, pursuant to call, at 2 o'clock p. m. in the committee room, Capitol, Senator Duncan U. Fletcher presiding.

Present: Senators Fletcher (chairman), Shields, Martin, Bankhead, Nelson, Jones, Sherman, Harding, and Johnson.

The CHAIRMAN. A quorum is present; and as Mr. Edward N. Hurley, chairman of the Shipping Board, is here, we will proceed with his examination. I understand that Mr. John A. Donald, a member of the Shipping Board, is present; but Mr. Stevens, another member of the board, is in Florida: he had just about got there when we passed our resolution; and a telegram was sent to him calling on him to be here at once. He will be back, I think, in time to appear; probably to-day and to-morrow we will have as much as we can do in examining the members of the board who are here.

The authority under which the committee is acting (S. Res. 170) will be inserted in the record of the hearing at this point.

(The resolution referred to is here printed in full, as follows:)

Resolved, That the Committee on Commerce, or any subcommittee thereof, be, and hereby is, authorized and directed to proceed at once with an investigation of the program, progress, and all matters connected with the building of merchant vessels under the direction of the United States Shipping Board Emergency Fleet Corporation, and to report its findings to the Senate at the earliest practical day, together with such recommendations as it may see fit to make as to remedies for existing difficulties, if any; and for this purpose the committee is authorized, during the Sixty-fifth Congress, to send for persons, books, and papers; to administer oaths; to employ a stenographer, at a cost not exceeding $1 per printed page, to report such hearings as may be had in connection with any subject which may be pending before said committee, the expenses thereof to be paid out of the contingent fund of the Senate, and that the committee, or any subcommittee thereof, may sit during the sessions or recess of the Senate.

The CHAIRMAN. Before the committee proceeds any further I will ask that the stenographer insert at this point the resolution adopted by the committee on yesterday.

(The resolution referred to is here printed in full, as follows:)

Resolved, That the Shipping Board furnish us—

1. An itemized statement of all contracts that have been let by and through the board and the subsidiary shipbuilding corporation thereof for the construction of ships, both steel and wood, since the establishment of the Shipping Board. Such statement should give the full name of each person, firm, or corporation with whom each contract has been made, when organized and how

long in operation, the place and locality where the shipbuilding under each contract has been or is being carried on.

2. The number of ships that have been constructed, if any, and the place where and by whom so built.

3. The number of ships now under construction and where and by whom the same are being built, as well as the proportion of work done on each vessel up to the present time.

4. Copies of all shipbuilding contracts entered into, in order that the committee can ascertain the terms of same.

5. Also what ships are being built in private yards for other than Government account, and by whom and where.

The CHAIRMAN. The committee will now hear Mr. Hurley.

STATEMENT OF HON. EDWARD N. HURLEY, CHAIRMAN OF THE UNITED STATES SHIPPING BOARD.

The CHAIRMAN. You are the chairman of the Shipping Board, are you?

Mr. HURLEY. Yes, sir.

The CHAIRMAN. Since when?

Mr. HURLEY. Since July 27.

The CHAIRMAN. July, 1917?

Mr. HURLEY. 1917.

The CHAIRMAN. Mr. Hurley, will you state what your business was before that, and mention any important enterprises with which you have been connected and how, and what official positions you have held?

Mr. HURLEY. Well, I have been in the manufacturing business for about 20 years. I was formerly president of the Standard Pneumatic Tool Co., of Chicago, the company that originated and developed the pneumatic-tool industry in this country and in Europe. We manufactured pneumatic hammers for driving rivets and drilling holes in metal by compressed air. I drove the first rivet in a ship—a large rivet, an inch rivet—that was ever driven by compressed air, on the Clyde. The large steamships that are now being erected, using an inch and an inch and a quarter rivet, could not be built if it were not for the fact that they had these pneumatic riveters. In driving a large rivet by hand it is not possible to fill the hole with hot metal on account of the long time required to drive the rivet with the sledge. So that in order to keep the plates from shearing and have the holes get full of hot metal at once these hammers were absolutely necessary to build the present ships.

That was in 1897, when they were first introduced and placed on the market. You know the history of the industry since that time. The shipbuilding throughout the world has increased and the sizes of the ships have increased materially on account of this particular invention, which I happened to be one of the men identified with, or with its first introduction—the use of pneumatic tools in riveting in this country and in Europe.

After being in that business for a number of years I retired from active work and later organized the Hurley Machine Co., of Chicago, in which I am still a large stockholder; it is engaged in the manufacture of electric appliances for the home, electric washing machines, electric iron machines, electric vacuum cleaners, and other household electrical appliances. That company has been successful.

I resigned from my position as president of that company and three years ago came to Washington as a member of the Federal Trade Commission. I served there two years, as vice chairman for one year and as chairman for another year. I resigned to go back to Chicago, to look after my private affairs, which I had neglected somewhat during my stay with the Federal Trade Commission. I was there for three months, and the President then asked me to go on the Red Cross war council. The war had started, and I came here and served on that council during the $100,000,000 campaign. And from there I went on the War Trade Board, looking into the foreign trade question; that is, from the export-license end of it.

On July 24 I was nominated by the President as a member of the Shipping Board and confirmed on the following day. I have been on the Shipping Board from that time.

The CHAIRMAN. In these matters you have mentioned, you have had the direction and the management and supervision of large numbers of men; you have been dealing with a great many men, have you not?

Mr. HURLEY. Yes, Mr Chairman, as high as 5,000 or 6,000 men; and was always the executive, working the company up from 5 employees to 4,000 employees.

The CHAIRMAN. What was the organization of the Shipping Board when you were elected chairman, and of the Emergency Fleet Corporation?

Mr. HURLEY. Well, they are two distinct organizations. The Emergency Fleet Corporation consisted of a board of trustees, a president, a vice president, and general manager, with the secretary and treasurer, and the other assistants. And that particular plan of organization continued up to November 26, when the by-laws were changed; and instead of electing a general manager by the trustees, after Admiral Capps resigned, we made the general manager an appointive officer, and we changed the by-laws also, taking the general manager's full authority which he had had up to that time, and placing that power in the president.

Senator NELSON. The president of the corporation?

Mr. HURLEY. The president of the Emergency Fleet Corporation.

Senator NELSON. Yes; I understand.

Mr. HURLEY (continuing). Making him solely responsible for the action and the working of the Emergency Fleet Corporation, the same as has been customary in all organizations. When a man is elected president, as a rule, he assumes the entire responsibility. After Admiral Capps became sick I was very anxious to get additional men, business men, around the admiral, so that if he continued to be sick and ailing the way he had been, we would have men about who would take his place.

With that thought in mind—and in addition to that I felt that the president of the corporation, who from a public point of view, and from many other points of view, was really held responsible, in a measure——

Senator NELSON (interposing). Who was the president of the corporation?

Mr. HURLEY. I was the president of the Emergency Fleet Corporation.

Senator NELSON. You were the president of the corporation, and also the president of the board?

Mr. HURLEY. I was chairman of the Shipping Board.

Senator NELSON. I mean you were chairman of the Shipping Board also?

Mr. HURLEY. Yes, sir. I am speaking now, Senator Nelson, more of the Fleet Corporation. Admiral Capps was general manager of that, and I was president.

Senator NELSON. You were president; and under the last amendment adopted to your rules or by-laws, under which the appointment of the general manager was provided for, you had full authority?

Mr. HURLEY. Yes. I had full authority. But I did not have full authority before. Admiral Capps had full authority. When Gen. Goethals was there these by-laws were adopted, giving Gen. Goethals full authority to act.

Senator NELSON. Yes; I understand that.

Mr. HURLEY. And then, when Admiral Capps came in, Admiral Capps had full authority, up to the time that the Admiral was taken sick. And when the new vice president came in——

Senator NELSON (interposing). Well, Admiral Capps was on the Fleet Corporation before you became chairman, was he not?

Mr. HURLEY. No.

Senator NELSON. Did he come in after you did?

Mr. HURLEY. We came together; we went in there the same day.

Senator NELSON. You went in together?

Mr. HURLEY. Yes.

The CHAIRMAN. The committee would probably like at some time to have a copy of the by-laws from the beginning, showing the various changes that have been made from time to time since then.

Senator NELSON. Yes; and I think that should be printed.

(The by-laws referred to are here printed in full, as follows:)

BY-LAWS OF THE UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.

ARTICLE I.—STOCKHOLDERS' MEETINGS.

SECTION 1. All meetings of the stockholders of this company shall be held at the principal office or place of business of the company in the District of Columbia.

SEC. 2. The annual meeting of the stockholders of this company shall be held on the 17th day of April of each year. A notice of such meeting, and of the time and place thereof, shall be mailed to each stockholder not less than 10 days previous thereto, in addition to the notice required by law, unless such notice shall be waived in writing by the holders of all the capital stock.

SEC. 3. If for any reason the annual meeting of stockholders shall not be held as hereinbefore provided, such annual meeting shall be called by the president and directors as soon as conveniently may be.

SEC. 4. Special meetings of the stockholders of this company may be called at any time by the president. It shall also be the duty of the president to call a special meeting of the stockholders whenever requested in writing so to do by holders of a majority of the capital stock; and if the president on such request fails to call a special meeting, the stockholders making the request may call such a meeting. Notice of special meetings shall be given by mailing a notice thereof to each stockholder, to his post-office address appearing upon the records of the company, at least 10 days before such meeting, in addition to

the notice required by law. Such notice shall state the time and place at which the meeting shall be held and shall briefly state the object of said meeting, and no business not so stated shall be considered at such meeting except on the unanimous consent of all stockholders present, in person or by proxy, at such meeting.

SEC. 5. At all stockholders' meetings stockholders owning at least a majority of the capital stock of the company, and present in person, by attorney, or by proxy, shall be necessary to constitute a quorum.

SEC. 6. At all annual meetings of stockholders the right of any stockholders to vote shall be governed and determined by the transfer records. Only such persons shall be entitled to vote who appear as stockholders upon the transfer records of the company.

SEC. 7. No share of stock shall be voted upon at any election which has been transferred on the records of the company within 10 days next preceding such election.

SEC. 8. Stockholders may give proxies to vote at any election.

SEC. 9. At all meetings of stockholders all questions shall be decided by stock vote. All voting may be viva voce, except that elections of Trustees shall be by ballot: *Provided*, That any member present may demand a vote by ballot.

SEC. 10. All meetings shall be presided over by the president, who may vote on all questions. In the absence of the president, the vice president shall preside, and shall have the powers herein conferred on the president.

SEC. 11. At all meetings for the election of trustees, two inspectors of election shall be first elected by a majority stock vote of all the stockholders present in person or by proxy, but no person who is a candidate for the office of director shall be elected an inspector: *Provided*, That the provisions of this section may be waived by unanimous consent.

SEC. 12. At all meetings of stockholders the following order of business shall be observed, so far as is consistent with the purpose of the meeting:

Reading minutes of preceding meeting and action thereon.
Report of president.
Report of treasurer.
Report of secretary.
Report of committees.
Election of trustees.
Unfinished business.
New business.

ARTICLE II.—THE TRUSTEES.

SECTION 1. The affairs of this corporation shall be managed by seven trustees, to be chosen annually, except that for the first year or until their successors are elected the trustees shall be the persons named for that purpose in the certificate of incorporation. The trustees shall at all times be stockholders of the corporation, and a majority thereof shall be citizens of the District of Columbia.

SEC. 2. Elections shall be at the annual meeting of the stockholders, to be held at the principal offices of the corporation in the District of Columbia, as provided in Article I. Public notice of the time and place of holding such election shall be published not less than 30 days previous thereto in some newspaper printed and published in the District, as provided by law, unless such notice shall be waived in writing by the holders of all the capital stock. All the elections shall be by ballot, and each stockholder shall be entitled to as many votes as he owns shares of stock in the company, and the persons receiving the greatest number of votes shall be trustees.

SEC. 3. In case of any vacancy among the trustees, through death, resignation, disqualification, or otherwise, the remaining trustees, by affirmative vote of a majority thereof, shall elect a successor to hold office until the next annual meeting of the stockholders.

SEC. 4. Any trustee may resign his office at any time, such resignation to be made in writing, and it shall take effect from the time of its delivery to the president.

SEC. 5. Regular meetings of the trustees shall be held the first and third Thursday of each month, immediately following the annual meeting of the stockholders. Special meetings shall be held whenever called by direction of the

president. The secretary shall give notice of each special meeting by personal notification or by mailing the same at least two days before the meeting, or telegraphing the same at least one day before the meeting, to each director, but such notice may be waived by any trustee. Special meetings may be held at such times and places as the trustees may from time to time determine.

OTHER OFFICERS.

SEC. 6. The trustees, immediately after the first, or any annual meeting of the incorporators, shall hold a meeting, at which they shall choose from among their number a president, and one or more vice presidents, and they shall at the same meeting choose a secretary, treasurer, and such other officers as they may deem necessary, who shall hold office until others are chosen and qualified in their stead. The trustees shall have power at any time to fill a vacancy in any office, and all officers shall be at all times subject to removal by the trustees.

ARTICLE III.—POWERS OF OFFICERS.

SECTION 1. The officers of the corporation shall be a president, one or more vice presidents, a treasurer, a secretary, and such other officers as the trustees shall determine. The powers and duties of the secretary and the treasurer may be exercised by the same person.

SEC. 2. The president shall preside at all meetings of the stockholders and of the trustees, and he shall, together with the secretary, sign all contracts and other instruments on behalf of the corporation. He shall have the general oversight and management of the business and affairs of the corporation, and shall have power to employ and discharge all clerks, employees, and agents, determine their salaries, and prescribe and define their duties.

SEC. 3. The vice presidents shall perform such duties as may be assigned or delegated to them by the president, including the power to sign contracts and other instruments.

SEC. 4. The treasurer shall deposit the money and securities belonging to the corporation in such bank, or banks, or other places of deposit as the trustees may designate, and all checks or other orders for the payment of money or the delivery of securities belonging to the company shall be signed by the president and treasurer or by such other person with the treasurer as the trustees may designate. The treasurer shall keep such books of account as the trustees may designate. A report of the financial condition of the company shall be made by the treasurer whenever requested by the president, and such a report shall be submitted by the treasurer at the annual meeting. He shall give such bond as the trustees may determine. The treasurer shall sign all certificates of stock and perform such other duties as the trustees may require.

SEC. 5. The secretary shall keep the minutes of all meetings of the stockholders and of the trustees in books provided for that purpose. He may sign, with the president, in the name of the corporation, all contracts and papers. He shall keep the seal of the company, and affix the same to all certificates of stock and such other instruments requiring the seal as may be directed by the trustees. He shall record all transfers of stock and cancel and preserve all certificates of stock transferred, and he shall also keep a record, alphabetically arranged, in a stock book provided for the purpose, of all those who are or shall have been within six years stockholders of the corporation, showing their place of residence, the number of shares held by them, respectively, the time when they became owners of such shares, and the amount of stock actually paid in.

ARTICLE IV.—STOCK.

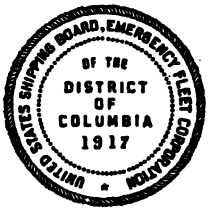
SECTION 1. All certificates of stock shall be signed by the president or a vice president, and the treasurer, and be attested by the corporate seal.

SEC. 2. Certificates of stock shall be in the form approved by the stockholders. They shall be transferred only on the books of the company by the holder thereof, in person or by his attorney, upon surrender and cancellation of certificates for a like number of shares; but no shares shall be transferable until all previous calls thereon shall have been fully paid in or the shares have been forfeited for nonpayment.

SEC 3. The trustees may declare dividends from the surplus or net profits of the corporation.

ARTICLE V.—MISCELLANEOUS.

SECTION 1. The seal of the company shall be—



[Seal of Shipping Board, Emergency Fleet Corporation.]

SEC. 2. The fiscal or business year of the company shall begin on the 1st day of July and end on the 30th day of June of each year.

SEC. 3. These by-laws may be amended by the trustees, by a majority vote thereof, at a regular or special meeting.

BY-LAWS OF THE UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.

ARTICLE I.—STOCKHOLDERS' MEETINGS.

SECTION 1. All meetings of the stockholders of this company shall be held at the principal office or place of business of the company in the District of Columbia.

SEC. 2. The annual meeting of the stockholders of this company shall be held on the 17th day of April of each year. A notice of such meeting, and of the time and place thereof, shall be mailed to each stockholder not less than 10 days previous thereto, in addition to the notice required by law, unless such notice shall be waived in writing by the holders of all the capital stock.

SEC. 3. If for any reason the annual meeting of stockholders shall not be held as hereinbefore provided, such annual meeting shall be called by the president and directors as soon as conveniently may be.

SEC. 4. Special meetings of the stockholders of this company may be called at any time by the president. It shall also be the duty of the president to call a special meeting of the stockholders whenever requested in writing so to do by holders of a majority of the capital stock; and if the president on such request fails to call a special meeting, the stockholders making the request may call such a meeting. Notice of special meetings shall be given by mailing a notice thereof to each stockholder, to his post-office address appearing upon the records of the company, at least 10 days before such meeting, in addition to the notice required by law. Such notice shall state the time and place at which the meeting shall be held, and shall briefly state the object of said meeting, and no business not so stated shall be considered at such meeting except on the unanimous consent of all stockholders present, in person or by proxy, at such meeting.

SEC. 5. At all stockholders' meetings stockholders owning at least a majority of the capital stock of the company and present in person, by attorney, or by proxy, shall be necessary to constitute a quorum.

SEC. 6. At all annual meetings of stockholders the right of any stockholders to vote shall be governed and determined by the transfer records. Only such persons shall be entitled to vote who appear as stockholders upon the transfer records of the company.

SEC. 7. No share of stock shall be voted upon at any election which has been transferred on the records of the company within 10 days next preceding such election.

SEC. 8. Stockholders may give proxies to vote at any election.

SEC. 9. At all meetings of stockholders all questions shall be decided by stock vote. All voting may be viva voce, except that elections of trustees shall be by ballot: *Provided*, That any member present may demand a vote by ballot.

SEC. 10. All meetings shall be presided over by the president, who may vote on all questions. In the absence of the president the vice president shall preside and shall have the powers herein conferred on the president.

SEC. 11. At all meetings for the election of trustees, two inspectors of election shall be first elected by a majority stock vote of all the stockholders present in person or by proxy, but no person who is a candidate for the office of director shall be elected an inspector; *Provided*, That the provisions of this section may be waived by unanimous consent.

SEC. 12. At all meetings of stockholders the following order of business shall be observed, so far as is consistent with the purpose of the meeting:

Reading minutes of preceding meeting and action thereon.
Report of president.
Report of treasurer.
Report of secretary.
Report of committees.
Election of trustees.
Unfinished business.
New business.

ARTICLE II.

SEC. 1. The affairs of this corporation shall be managed by seven trustees, to be chosen annually, except that for the first year or until their successors are elected the trustees shall be the persons named for that purpose in the certificate of incorporation. The trustees shall at all times be stockholders of the corporation, and a majority thereof shall be citizens of the District of Columbia.

SEC. 2. Elections shall be at the annual meeting of the stockholders, to be held at the principal offices of the corporation in the District of Columbia, as provided in article 1. Public notice of the time and place of holding such election shall be published not less than 30 days previous thereto in some newspaper printed and published in the District, as provided by law, unless such notice shall be waived in writing by the holders of all the capital stock. All the elections shall be by ballot, and each stockholder shall be entitled to as many votes as he owns shares of stock in the company, and the persons receiving the greatest number of votes shall be trustees.

SEC. 3. In case of any vacancy among the trustees, through death, resignation, disqualification, or otherwise, the remaining trustees, by affirmative vote of a majority thereof, shall elect a successor to hold office until the next annual meeting of the stockholders.

SEC. 4. Any trustee may resign his office at any time, such resignation to be made in writing, and it shall take effect from the time of its delivery to the president.

ORIGINAL SECTION.

SEC. 5. Regular meetings of the trustees shall be held annually, immediately following the annual meeting of the stockholders. Special meetings shall be held whenever called by direction of the president. The secretary shall give notice of each meeting by mailing the same at least two days before the meeting, or telegraphing the same at least one day before the meeting to each director; but such notice may be waived by any trustee. Special meetings may be held at such times and places as the trustees may from time to time determine.

AS AMENDED.

(Nov. 15, 1917.)

Regular meetings of the trustees shall be held the first and third Thursday of each month, immediately following the annual meeting of the stockholders. Special meetings shall be held whenever called by direction of the president. The secretary shall give notice of each special meeting by personal notification or by mailing the same at least two days before the meeting, or telegraphing the same at least one day before the meeting to each director, but such notice may be waived by any trustee. Special meetings may be held at such times and places as the trustees may from time to time determine.

Other officers.

ORIGINAL.

SEC. 6. The trustees, immediately after the first meeting of the incorporators, shall hold a meeting at which they shall choose from among their number a president and a vice president, and they shall at the same meeting choose a secretary, treasurer, general manager, and such other officers and agents as they may deem necessary, who shall hold office until others are chosen and qualified in their stead.

AS AMENDED.

(Nov. 24, 1917.)

The trustees, immediately after the first or any annual meeting of the incorporators, shall hold a meeting at which they shall choose from among their number a president and one or more vice presidents, and they shall at the same meeting chose a secretary, treasurer, and such other officers as they may deem necessary, who shall hold office until others are chosen and qualified in their stead. The trustees shall have power at any time to fill a vacancy in any office, and all officers shall be at all times subject to removal by the trustees.

EXECUTIVE COMMITTEE.

SEC. 7. The trustees, by affirmative vote of a majority thereof, may appoint from their number an executive committee of three members, and during the intervals between meetings, it shall have and exercise all of the powers of the board of trustees. Of this committee a majority shall constitute a quorum, but no action taken shall be valid unless the same has the affirmative vote of at least two members. The executive committee may hold its meetings at such times and places, within or without the District of Columbia, as the committee may, from time to time, determine. All vacancies on the committee shall be filled by the trustees at a regular or special meeting thereof. The general manager shall be ex officio chairman of the executive committee.

(Nov. 15, 1917.)

This section eliminated from new by-laws.

Powers of officers.

ARTICLE III.

ORIGINAL.

SEC. 1. The officers of the corporation shall be a president, a vice president, a treasurer, a secretary, a general manager, and such other officers as the trustees shall determine. The powers and duties of the secretary and the treasurer may be exercised by the same person.

All officers shall be appointed by, and subject to removal by, the board of trustees.

AS AMENDED.

(Nov. 24, 1917.)

The officers of the corporation shall be a president, one or more vice presidents, a treasurer, a secretary, and such other officers as the trustees shall determine. The powers and duties of the secretary and treasurer may be exercised by the same person.

(Nov. 15, 1917.)

SEC. 2. The president shall preside at all meetings of the stockholders and of the trustees, and he shall, together

The president shall preside at all meetings of the stockholders and of the trustees, and he shall, together

with the secretary, sign all contracts and papers on behalf of the corporation.

with the secretary, sign all contracts and other instruments on behalf of the corporation. He shall have the general oversight and management of the business and affairs of the corporation, and shall have power to employ and discharge all clerks, employees, and agents, determine their salaries, and prescribe and define their duties.

(Nov. 15, 1917.)

SEC. 3. The vice president shall, in the absence or incapacity of the president, perform the duties of that officer.

The vice president shall perform such duties as may be assigned or delegated to them by the president including the power to sign contracts and other instruments.

(Nov. 15, 1917.)

SEC. 4. The general manager shall be ex officio chairman of the executive committee. He shall have the general oversight and management of the business and affairs of the corporation, and shall have power to employ and discharge all clerks, employees, and agents. determine their salaries, and prescribe and define their duties.

Eliminated from new by-laws.

SEC. 5. The treasurer shall deposit the money and securities belonging to the corporation in such bank or banks or other places of deposit as the trustees may designate, and all checks or other orders for the payment of money or the delivery of securities belonging to the company shall be signed by the president and treasurer or by such other person with the treasurer as the trustees may designate. The treasurer shall keep such books of account as the trustees may designate. A report of the financial condition of the company shall be made by the treasurer whenever requested by the president, and such a report shall be submitted by the treasurer at the annual meeting. He shall give such bond as the trustees may determine. The treasurer shall sign all certificates of stock and perform such other duties as the trustees may require.

(Nov. 15, 1917.)

SECTION 6. The secretary shall keep the minutes of all meetings of the stockholders, of the trustees, and of the executive committee, in books provided for that purpose. He may sign, with the president, in the name of the corporation, all contracts and papers. He shall keep the seal of the company, and affix the same to all certificates of stock and such other instruments requiring the seal as may be directed by the trustees. He shall record all transfers of stock, and cancel and preserve all certificates of stock transferred, and he shall also keep a record, alphabetically arranged in a stock book provided for the purpose, of all those who are or shall have been within six years stockholders of the corporation, showing their place of residence, the number of shares held by them, respectively, the time when they became owners of such shares, and the amount of stock actually paid in.

The secretary shall keep the minutes of all meetings of the stockholders and of the trustees in books provided for that purpose. He may sign, with the president, in the name of the corporation, all contracts and papers. He shall keep the seal of the company, and affix the same to all certificates of stock and such other instruments requiring the seal as may be directed by the trustees. He shall record all transfers of stock, and cancel and preserve all certificates of stock transferred, and he shall also keep a record, alphabetically arranged in a stock book provided for the purpose, of all those who are or shall have been within six years stockholders of the corporation, showing their place of residence, the number of shares held by them, respectively, the time when they became owners of such shares, and the amount of stock actually paid in.

ARTICLE IV.—STOCK.

SECTION 1. All certificates of stock shall be signed by the president or vice president and treasurer, and be attested by the corporate seal.

(Nov. 15, 1917.)

All certificates of stock shall be signed by the president or a vice president, and the treasurer, and be attested by the corporate seal.

SEC. 2. Certificates of stock shall be in the form approved by the stockholders. They shall be transferred only on the books of the company by the holder thereof, in person or by his attorney, upon surrender and cancellation of certificates for a like number of shares; but no shares shall be transferable until all previous calls thereon shall have been fully paid in or the shares have been forfeited for nonpayment.

SEC. 3. The trustees may declare dividends from the surplus or net profits of the corporation.

ARTICLE V.—MISCELLANEOUS.

SECTION 1. The seal of the company shall be—

(SEAL.)

SEC. 2. The fiscal or business year of the company shall begin on the first day of July and end on the thirtieth day of June of each year.

SEC. 3. These by-laws may be amended by the trustees, by a majority vote thereof, at a regular or special meeting.

Mr. HARDING. Would it not be helpful at this point, Mr. Chairman, to have Mr. Hurley tell us precisely what the relations are between the Shipping Board and the Emergency Fleet Corporation?

The CHAIRMAN. Well, I take it for granted that he is going to tell us that later. I asked him for the organization of both the Shipping Board and the Fleet Corporation; and he has been telling us about the Emergency Fleet Corporation so far.

It would be well, I think, Mr. Hurley, for you to deal with the personnel of both these bodies.

Mr. HURLEY. The Emergency Fleet Corporation is the manufacturing part of the business. They produce the ships; they manufacture ships, and the Shipping Board operates them. After the ships are completed the Fleet Corporation turns them over to the Shipping Board, and the Shipping Board operates them. We have an operating department and a manufacturing department.

Senator NELSON. Let me ask you a question right in that connection, for my information. You say the shipbuilding corporation—I will call it the "corporation" instead of the board—has charge of the building of ships; but does not the Shipping Board dominate that and actually control the corporation, even in building operations?

Mr. HURLEY. Well, as trustees, yes; but not in active management.

Mr. PAYNE. May I take just a minute, Mr. Chairman, to make a single suggestion?

Senator HARDING. Mr. Chairman, I would like to know the name of this gentleman who is speaking.

The CHAIRMAN. It is Judge Payne, general counsel of the board.

Mr. PAYNE. My name is Payne. I am general counsel. I just want to explain a technical point that has arisen here. The Shipping Board act, under which the Shipping Board is operating, by section 11, provided for the organization of the Emergency Fleet Corporation.

Senator NELSON. Yes; we understand that.

Mr. PAYNE. And that is a corporation with $50,000,000 capital.

Senator MARTIN. Mr. Chairman, I would like to understand this matter before we go further. Is the attorney of the Shipping Board who has just spoken here to represent the board as counsel?

The CHAIRMAN. Judge Payne is the general counsel of the Shipping Board, and he is present. But I do not understand that there is any formal representation of the board before this committee.

Senator SHIELDS. I suggest, Mr. Chairman, that it would be better for us to hear the general counsel of the Shipping Board later. We are hearing the chairman of the board now.

The CHAIRMAN. I understand that; but Judge Payne is simply pointing out the technical distinction between the two organizations.

Senator SHIELDS. Well, that is known to everybody; that is part of the statute.

Senator MARTIN. Well, I did not understand that the Shipping Board was to appear here before this committee by counsel.

The CHAIRMAN. There is no counsel here representing the Shipping Board before this committee.

Senator MARTIN. They need nobody to defend them that I know of.

Senator NELSON. I know the technical distinction between the two organizations that Judge Payne was pointing out. But what I wanted to know, Mr. Hurley, was, did not your board exercise a dominating influence over the Fleet Corporation in reference to its work? Did not your board give the Fleet Corporation orders as to what it was to do or not to do?

Mr. HURLEY. Only through the president.

Senator NELSON. Yes; through the president.

Mr. HURLEY. But the trustees had no voice in the active management of the corporation.

Senator NELSON. No; you were both president of the corporation and chairman of the board?

Mr. HURLEY. Yes.

Senator SHIELDS. The same officers?

Mr. HURLEY. Yes.

Senator NELSON. And the Shipping Board then, through you as chairman, gave directions to you as president of the corporation?

Mr. HURLEY. Not from the manufacturing standpoint; not unless I went to them and asked them.

Senator NELSON. Was the corporation entirely independent of the Shipping Board in the matter of manufacturing?

Mr. HURLEY. Absolutely. The general manager of the Emergency Fleet Corporation, Gen. Goethals, and Admiral Capps—and we are speaking of Admiral Capps's administration now—the trustees never interfered with General Manager Capps. He had full authority to go ahead and do what he liked and to build his ships. And in cooperation with me—we worked very successfully together——

Senator NELSON. Now, who made the contracts?

Mr. HURLEY. Admiral Capps.

Senator NELSON. Were they signed by him?

Mr. HURLEY. They were initialed by him but signed by me.

Senator NELSON. Yes; I understand.

Mr. HURLEY. But the Shipping Board had nothing to do with it. I am speaking now of the period when I went on the board.

Senator NELSON. I understand that, and I am simply asking you that for information.

Mr. HURLEY. Yes.

Senator JONES. You signed the contracts as president of the Shipping Board?

Mr. HURLEY. No; as president of the Emergency Fleet Corporation.

Senator JONES. As president of the Emergency Fleet Corporation. So that Admiral Capps could not make a contract?

Mr. HURLEY. Admiral Capps made all the contracts and initialed them.

Senator JONES. I know, but——

Mr. HURLEY (interposing). And I had nothing to say, but I approved them and signed them as president.

Senator JONES. Yes; but suppose you did not approve them?

Mr. HURLEY. That never occurred; I approved them.

Senator JONES. But it might have occurred, and the contract would not have been made until you approved it?

Mr. HURLEY. When contracts presented to me for signature and initialed by Admiral Capps were properly explained I never questioned him about them. I would not question any manager that I had confidence in, and naturally I approved the contracts which he submitted.

Senator JONES. I understand that. But as a matter of fact, Admiral Capps could not make a contract; it did not become a contract until after you had approved it?

Mr. HURLEY. No, sir.

Senator JONES. And you could approve or not as you saw fit?

Mr. HURLEY. Yes.

Senator HARDING. Was there at any time a disagreement between Admiral Capps and the president of the Shipping Board over a question of policy?

Mr. HURLEY. Not in relation to any contracts; there was no controversy; I never had a cross word with him, because we were cooperating all the time on the development of the work that we had before us. We had some discussions about different subjects, but never a controversy; never a question of any kind in relation to the successful conduct of the business. It has not been retarded in any way by his being general manager and I being president.

The CHAIRMAN. Let us get at the organization now. You were president of the Emergency Fleet Corporation; Admiral Capps was general manager. Who were the trustees?

Mr. HURLEY. The trustees were the members of the Shipping Board and Admiral Capps; he was a member of the trustees. And we had an executive committee, of which Admiral Capps was chairman. I was a member of that executive committee and a member of the board. Mr. Stevens was a member of that executive committee. Admiral Capps——

Senator NELSON (interposing). Then, Mr. Hurley, the trustees of the corporation and the members of the board were identical; the members of your board were trustees of this corporation, were they not?

Mr. HURLEY. They were.

Senator NELSON. So that there was an identity; the same set of officers, the same set of management or control in one case as in the other?

Mr. HURLEY. The five members of the Shipping Board are also trustees of the Emergency Fleet Corporation. In addition, at the time of which you speak Admiral Capps and Mr. Piez were also trustees of the corporation.

The CHAIRMAN. Have there ever been any changes made or contemplated since you went in as president of the Emergency Fleet Corporation, Mr. Hurley?

Mr. HURLEY. Do you mean of the officers, the additional officers?

The CHAIRMAN. Yes.

Mr. HURLEY. Yes; Mr. Chairman. On my recommendation, Admiral Capps appointed a productive committee to investigate the shipyards; business men, of which committee Mr. Piez, president of the Link Belt Co.; Mr. Mason, an engineer; and Mr. Day, of Philadelphia, a production engineer, were members; this committee was appointed to make an investigation as to the conditions in the respective yards throughout the country.

They later made their report, and then I asked that Mr. Piez be elected vice president of the Emergency Fleet Corporation and the trustees elected him. After he was elected vice president we placed him in charge of the organization, the operating part of it. This was at a time when the Admiral was very sick, and we were very anxious to have some one get into harness and be helpful on that account.

Senator NELSON. What business had he been in before he became vice president.

Mr. HURLEY. He had been in the machinery business.

Senator NELSON. What kind of machinery?

Mr. HURLEY. They make conveying machinery.

Senator Nelson. He had not anything to do with shipbuilding?

Mr. HURLEY. Only as an engineering proposition.

The CHAIRMAN. Then there were other changes made subsequently to Admiral Capps's resignation?

Mr. HURLEY. Yes.

The CHAIRMAN. Then what was the organization?

Mr. HURLEY. Then the organization was this: We appointed Admiral Harris general manager in place of Admiral Capps, and Admiral Harris was there a few days, and he resigned.

Senator NELSON. Let me ask you this question about Admiral Harris. Does not he belong to that class of civil engineers in the Navy with the rank of admiral, or is he a full naval officer?

Mr. HURLEY. He had charge of the docks; he is not a shipbuilder.

Senator NELSON. No; but they have a set of civil engineers in the Navy; they give them the rank of captain or admiral, and so on. Was he not of that kind? He was not of the same class of officers as Admiral Capps, was he?

Mr. HURLEY. No.

Senator NELSON. No; that was my understanding.

Mr. HURLEY. That is my understanding; I am not clear on that, however.

Senator NELSON. Well, I think so.

The CHAIRMAN. Then, after Admiral Harris resigned, what was done?

Mr. HURLEY. I appointed Mr. Piez vice president and general manager.

The CHAIRMAN. And the trustees continue you as president of the Emergency Fleet Corporation and Mr. Piez as vice president and general manager; are there any other officers?

Mr. HURLEY. Yes; the chief constructor.

The CHAIRMAN. Who is the chief constructor?

Mr. HURLEY. Admiral Bowles is constructor of steel; Mr. Hayworth is director of operations of the wooden ships. We enlarged the entire organization, and Mr. Day is going to be production manager; and Mr. Mason—or Commander Ackerson is Mr. Piez's assistant; he is in the Navy; he was with Admiral Capps. Admiral Rousseau, of the Navy, is in charge of yards and docks for the Fleet Corporation. Mr. Radford, who was formerly in the Navy, is contract manager; then, there are the secretary and the treasurer and the chief auditor and the accountant, and all the other members of the staff; they have been there since Gen. Goethals was there; they have not been changed.

Senator NELSON. This may seem an unnecessary question, but I want to feel my way in this matter. Have we any Government shipbuilding yards outside of the yards that are building ships for the Navy?

Mr. HURLEY. We have three.

Senator NELSON. Where are they?

Mr. HURLEY. At Hog Island, Bristol, and Newark, N. J.

Senator NELSON. Have you utilized those shipyards?

Mr. HURLEY. They are being erected.

Senator NELSON. Oh, they are being erected now?

Mr. HURLEY. Yes.

Senator NELSON. Are they being erected by the Government?

Mr. HURLEY. Yes.

Senator NELSON. At the expense of the Government?

Mr. HURLEY. Yes.

Senator NELSON. When did you start erecting them?

Mr. HURLEY. Seventy-six days ago we started at Newark. The Submarine Boat Co., at Newark, N. J.; they laid the first keel yesterday of 150 ships.

Senator NELSON. And when did you start the other two yards?

Mr. HURLEY. The other two yards, the American and International, were started in September—the latter part of September.

Senator NELSON. This last September?

Mr. HURLEY. Yes; and the Merchants' Shipbuilding yard, which was the Bristol yard, was started about the same time.

Senator NELSON. Yes. Now, whatever operations you have attempted, then, to carry on in the shipbuilding line have been in private yards, not Government yards?

Mr. HURLEY. We are interested; we help out and make contributions on the contract in many private yards.

Senator NELSON. You advance them money to build their plants with?

Mr. HURLEY. To build their plants.

Senator NELSON. Before they start in?

Mr. HURLEY. No; they have to have some capital.

Senator NELSON. I know; but before they commence to do anything?

Mr. HURLEY. We give them 10 per cent——

Senator NELSON (interposing). You advance the money to create a shipyard?

Mr. HURLEY. No; we do not. An old-established yard that is building ships—in that case we may advance them something to ex-

pand; but in the case of a new shipyard they must have the money to do a certain amount of work, and after they have that money invested and work under way we give them perhaps 10 per cent on their contract.

Senator NELSON. Ten per cent of that money before they have even started building a ship?

Mr. HURLEY. Yes.

The CHAIRMAN. These yards that you have mentioned were not established Government yards, were they? You call them Government yards now because the Shipping Board is furnishing the money to build them?

Mr. HURLEY. Yes.

The CHAIRMAN. They are all new, are they not?

Mr. HURLEY. All new.

Senator JONES. Well, I would like to understand this—that last statement confused me somewhat. I thought these Government yards were ours and that the Government, or the Shipping Board, was putting them up.

Mr. HURLEY. They are.

Senator NELSON. That is the three that he mentioned, I think.

Senator JONES. These three were not private yards that you are taking over?

Mr. HURLEY. No.

Senator JONES. But you are starting them from the ground up?

Mr. HURLEY. Yes, sir; we have spent $9,000,000 so far.

Senator NELSON. Excuse me, but I did not get the locality of those three yards.

Mr. HURLEY. Hog Island is right near Philadelphia, on the Delaware River.

Senator NELSON. Yes; and where are the other two?

Mr. HURLEY. Bristol, Pa., is on the Delaware River, and Newark, N. J., is in the Meadows there.

Senator NELSON. Yes.

Mr. HURLEY. That particular yard is building 28 ways and building 150 boats; that is the Submarine Boat Co. The International Corporation are building 50 ways and 120 boats.

Senator NELSON. Well, is it the plan for you to furnish these yards to these private companies? The Government erects these shipyards, does it?

Mr. HURLEY. Yes.

Senator NELSON. And then you furnish them to these companies that are building ships? The Government is not constructing the ships in its own yard, is it?

Mr. HURLEY. Well, they are our own yards; it is a matter of adjustment afterwards on the contracts that we have; they are working on a percentage basis.

Senator NELSON. I know, but it is the company that is building the ships, and not the Government?

Mr. HURLEY. They are our agents.

Senator NELSON. They are your agents; just as much as any other contractor?

Mr. HURLEY. Yes; only that we built the yards.

Senator NELSON. You build the yards; that is the difference between them and the others?

Mr. HURLEY. Yes.

Senator NELSON. The others furnish their own yards, and in this case you furnish the yards?

Mr. HURLEY. Yes.

Senator JONES. Did these companies have any yards at all?

Mr. HURLEY. What do you mean—at the present time?

Senator JONES. No; did they?

Mr. HURLEY. Oh, yes; the American International Co. owned the New York Shipbuilding Co., and they are drawing from the staff of the New York Shipbuilding Co., so that they are experienced men. And the Submarine Boat Co. also ran a shipbuilding business.

Senator JONES. What kind of shipbuilding business were they in; were they building merchant ships or submarines?

Mr. HURLEY. Submarines, submarine chasers, and so forth.

Senator JONES. They had built merchant ships, too?

Mr. HURLEY. Yes; the New York Shipbuilding Co. had. The Bristol yard is owned by the Merchants' Shipbuilding Co., and they have an experienced set of men. So that these are not new people in the work.

The CHAIRMAN. Where are the yards of the Merchants' Shipbuilding Co.?

Mr. HURLEY. It is at Chester, Pa.

The CHAIRMAN. Now they are operating your yard near Bristol, Pa.?

Mr. HURLEY. We are building a Government yard at Bristol.

The CHAIRMAN. And the Merchants' Shipbuilding Co. are the people who are actually building the ships there?

Mr. HURLEY. Yes.

Senator NELSON. Is that the company that Mr. Hannevig is connected with?

Mr. HURLEY. No; it is the Harriman people who are interested in it.

Senator NELSON. He has got a yard in Wilmington and one up the Delaware River?

Mr. HURLEY. That is the Pennsylvania Shipbuilding Co.

Senator NELSON. Yes; you know who Mr. Hennevig is?

Mr. HURLEY. Yes.

The CHAIRMAN. How many ships are the Merchants' Shipbuilding Co. building?

Mr. HURLEY. They are building 40 ships.

The CHAIRMAN. Of what size are the ships?

Mr. HURLEY. Nine thousand tons.

Senator NELSON. Are they steel ships?

The CHAIRMAN. Are they fabricated steel ships?

Mr. HURLEY. Yes.

The CHAIRMAN. They are fabricated steel; and the contract with them was on what kind of basis?

Mr. HURLEY. On a percentage basis.

The CHAIRMAN. Cost plus percentage?

Mr. HURLEY. No; not cost plus percentage; we have not any cost plus. That is a detail that Admiral Capps undertook himself, and we have not made any cost plus contracts.

Senator NELSON. For my information I will ask—it may seem a somewhat foolish question—but what is fabricated steel? What is the difference between that and other steel construction?

Mr. HURLEY. In the case of a fabricated ship, they lay the keel in a shipyard, and the old way was to bring all the plates there and drive the rivets on the framework. This plan is to have 40 or 50 outside shops put two plates together and drive the rivets and bring the plates to the shipyard and put the plates on; and 50 per cent of the riveting is done outside.

Senator NELSON. I see.

Mr. HURLEY. And the holes are reamed, and the plates are bent, and everything is put in shape so that the American International Co., for instance, have outside of the shipyards about 50 plants working on these plates.

Senator NELSON. The effect of that is to expedite greatly the building of such ships?

Mr. HURLEY. Oh, yes.

The CHAIRMAN. You mentioned awhile ago the Submarine Boat Co., of Newark, N. J. Do you remember the type of ships that they are building, and the number?

Mr. HURLEY. They are building 150 5,000-ton ships.

Senator NELSON. Are those merchant ships?

Mr. HURLEY. Oh, yes; they are cargo carriers; nothing but cargo carriers.

Senator HARDING. Had a fabricated ship ever been built successfully before?

Mr. HURLEY. In England it has; they built two over there; one was here about a month ago.

Senator HARDING. They have built two of those ships?

Mr. HURLEY. Yes; there is not any great difference about the fabricated ship.

Senator HARDING. What is the difference between a so-called fabricated ship and the standard steel ship?

Mr. HURLEY. None; except that the shipbuilders drive the rivets. They are all countersunk rivets in the shipyards, and, as I said, it is a question of saving this labor in the yards; instead of crowding it all on to the ways, or on to a ship, they facilitate matters by bringing the work in half finished.

Senator HARDING. Before we get away from the subject of these yards, what sort of a shipbuilding enterprise has been inaugurated at Alexandria, Va.; is that a private enterprise?

Mr. HURLEY. Yes.

Senator HARDING. But it is under contract with the Emergency Fleet Corporation to produce ships, is it not?

Mr. HURLEY. At a flat price.

Senator HARDING. When was that enterprise started?

Mr. HURLEY. The contract was let just before Admiral Capps left. The admiral let the contract and I approved it. Mr. Morse, who has the contract for construction at Alexandria, is building ships up in Connecticut now and has made very rapid progress on the program he has had. And where we have a man that is a shipbuilder and is building ships successfully and he desires to expand or start a new yard, we are inclined to encourage him; but we are reluctant about starting new yards with inexperienced men.

Senator HARDING. Well, were the Morse yards started essentially with Government capital?

Mr. HURLEY. Oh, no; they invested their own money. We have not put a cent in the Alexandria yard.

Senator HARDING. Now, so many things have come up here that I want to be pertinent. Has the Emergency Fleet Corporation driven shipbuilding in private yards to full capacity while constructing these Government yards?

Mr. HURLEY. Yes.

Senator HARDING. Well, they have had a minimized capacity, somewhat of a reduced capacity of production, have they not, in the private yards?

Mr. HURLEY. Oh, yes; they have not come up to our expectations, on account of the fact that they have started new yards and the labor question was so serious.

Senator HARDING. I was going to ask you, did the labor taken by the Government construction impair the efficiency of the private yards somewhat?

Mr. HURLEY. Very much. The new shipyards starting in different localities impaired the efficiency of the old established yards, because they went out and hired men away from each other. The new yards would give a bonus to a man to get him to work for them and take him away from the other yard. There was a good deal of that for three or four months; it has improved somewhat now.

Senator HARDING. The point I am trying to get at is this: Would you not have had earlier deliveries of ships if there had been some education of private yards under contract with the Emergency Fleet Corporation along that line?

Mr. HURLEY. It is hard to answer that question, Senator Harding. We talked to the shipyard owners and did everything we possibly could along that line. And they would agree to it, and then their foremen would go out and have a man at the gate of another yard and employ all the riveters and other workers that they could get from the other yards. We sent two tourists' sleeping cars loaded with men for western shipyards a short while ago, and we were asked to give them priority to get them out there. And then the eastern shipyards went out there and employed riveters away from those very successful yards on the Pacific coast.

Senator HARDING. How soon will you have completed the new Government yards?

Mr. HURLEY. Well, the Submarine Boat Co. yard is 90 per cent completed now; and, as I say, they have laid three keels.

Senator HARDING. What is the situation as to Bristol?

Mr. HURLEY. Bristol is not as far advanced. Neither is the American International.

Senator HARDING. The question I am trying to lead to, in order to obtain some assurance, is, Will the forces engaged in fitting these yards be available for the building of ships?

Mr. HURLEY. Do you mean the erecting crews?

Senator HARDING. The working forces.

Mr. HURLEY. Yes; that has affected some of the yards; the building program was so large. Of course, those men are a somewhat different class of men. The men that drive rivets on structural steel buildings are not considered first-class ship riveters.

Senator HARDING. Can they not be made such?

Mr. HURLEY. Oh, yes.

Senator HARDING. How many thousands of those men will the release of the construction forces bring to the shipbuilding forces?

Mr. HURLEY. I will say 15,000. I am guessing on that; there are a large number of men on that. I have the figures on that already made out at the office.

Senator JONES. Who are the people connected with the Submarine Boat Co.?

Mr. HURLEY. Mr. Carse is the president of it.

Senator JONES. Do you know the other officers?

Mr. HURLEY. No; I do not.

Senator JONES. Have they a contract similar to that of the Merchants' Shipbuilding Co.?

Mr. HURLEY. Yes; on the same basis.

Senator JONES. Who are the people connected with the American International Co.?

Mr. HURLEY. They are the New York shipbuilding group of men. Mr. Robinson is the president of it.

Senator JONES. And how many ships have they contracted to build?

Mr. HURLEY. They have 120.

Senator JONES. Steel or fabricated.

Mr. HURLEY. Fabricated steel.

Senator JONES. Fabricated steel? They are on the same kind of basis as the Submarine Boat Co.?

Mr. HURLEY. Yes.

Senator JONES. Where are they located?

Mr. HURLEY. Hog Island, on the Delaware River, across the way from Philadelphia.

The CHAIRMAN. Mr. Hurley, why is it that in this organization you have taken in officers of the Navy and people who have been connected with the Navy? What is the necessity for taking them in?

Mr. HURLEY. Well, Gen. Goethals had the Navy men in there, and Admiral Capps was appointed by the President, or assigned by the President, to the position, and Admiral Capps selected Admiral Bowles and Commander Ackerson and Mr. Radford.

The CHAIRMAN. Are they paid by the Shipping Board?

Mr. HURLEY. The naval officers that are on the staff are not paid by the Shipping Board; they are assigned from the Navy.

The CHAIRMAN. They are simply assigned; was that on the request of your board?

Mr. HURLEY. No; they were there. Admiral Harris was the only one that I ever suggested be assigned to it.

The CHAIRMAN. Of course, Mr. Hurley, our chief concern has been to get the ships built and to put them into the service. Now, will you tell the committee what that involves? What are the steps necessary for doing that, and what does it involve?

Mr. HURLEY. Would you permit me to read a short statement that I have prepared here?

The CHAIRMAN. Yes; certainly.

Senator NELSON. May I ask, Mr. Chairman, a preliminary question? We requested you, Mr. Hurley, to furnish us a statement. You know what that is?

Mr. HURLEY. Yes.

Senator NELSON. Is there any part of that statement that we requested you to furnish us that ought to be treated as confidential and not made public?

Mr. HURLEY. I would like to have at some time a private session with the members of this committee. There is nothing in this statement that I have that is confidential.

Senator NELSON. No; I mean the information contained in the answer to our request. If there is any part of that that you think should be regarded as confidential and not made public, I wish you would let us know now. The reason I ask is that I did not want to ask any questions that would be improper.

The CHAIRMAN. I understand that the situation with reference to that is that the material in answer to the resolution of this committee is all here. It is quite a voluminous mass of material. The question arises whether the committee would rather have that material presented when Admiral Bowles comes on, or somebody else who has had actual connection with the construction problem, and who can deal with the statements that have been furnished in regular order, and explain some of the figures, etc., or whether the committee would prefer to have this mass of material printed just as it is. It can be presented either by a witness in connection with his statement, or in documentary form.

Senator NELSON. I would suggest, Mr. Chairman, that if there is a lot of that material, an index or brief of it should be prepared, so that we would not have to wade through every document that they have furnished.

The CHAIRMAN. Yes. For instance, we have called upon them for contracts. Now, if we decided to have all of those contracts printed, we would have an enormous mass of undigested material.

Senator NELSON. Yes; we do not want that.

Senator HARDING. I think if we have those documents where they can be referred to, that is all that we will require. The particular information that we wish can be drawn from the witnesses who appear before the committee, much better than it could be obtained by wading through a great mass of documentary evidence.

The CHAIRMAN. Then we can get that data later.

(The data referred to will be found printed in full on page — of this volume.)

Mr. HURLEY. At the outset of this inquiry I would like to say that the Shipping Board, appreciating the fact that the Senate's desire is to be of national service, welcomes a thorough investigation of its activities and accomplishments. I am especially glad of the opportunity which this investigation affords to disclose the actual facts in the situation. When Admiral Capps and I joined the Emergency Fleet Corporation on July 27, 1917, there were under contract 840,900 tons of wooden ships, 207,000 tons of composite ships, and 587,000 tons of steel ships. Since then additional contracts amounting to 3,378,200 tons of steel ships and 504,000 tons of wooden ships have been placed. In addition the Fleet Corporation has rendered financial aid to and is directing the work of extension and development in 42 yards. The remaining new yards are being constructed by private capital. A portion of the contracts placed since July 27 were prepared and practically closed by our predecessors. It must be borne

in mind that this vast program of construction undertaken in the past nine months was superimposed on a navy program which was the equivalent in dollars and, therefore, in shipbuilding effort, of the construction of 2,500,000 tons of merchant shipping. The Navy program and private contract absorbed practically 70 per cent of the 18 prominent yards in existence at the beginning of the war with Germany, the remaining 30 per cent of these yards being taken up with the construction of merchant shipping for both foreign and American account, which was requisitioned under the order of August 3. This tonnage is now being completed under the supervision and control of the Emergency Fleet Corporation. When we compare the total tonnage under construction for both the Navy and the Shipping Board with the greatest annual output of American yards prior to the war, which Mr. Homer Ferguson in a recent article puts at 615,000 tons, some conception of the magnitude of our undertaking will be had.

The contracts of the Emergency Fleet Corporation have been let to 110 shipyards, of which 36 existed on Junuary 1, 1917, and 74 have been created since. In addition the Emergency Fleet Corporation has requisitioned vessels which are building in 22 shipyards in addition to the above, so that the Fleet Corporation is at present controlling work in 132 yards, of which 58 are old and 74 are new.

The great and constant increase in new yards to be constructed and tonnage awarded has required a constant expansion of our organization, and has compelled us to make changes which the proper carrying out of this vastly expanded program made imperative.

The organization has been expanded not only with the idea of checking up and safeguarding the expenditure of the vast sum intrusted to our care, but with the idea of infusing both into the shipbuilders and the workmen engaged in the art that degree of enthusiasm for the work and interest in it that is absolutely essential to the carrying out of our purpose. We have recognized that it was necessary not only to vastly expand the number of men, and therefore to evolve a method of getting an adequate supply of labor and training it if necessary, but we have also been convinced of the necessity that we must spend more time in training up the executive and technical organization in those plants which have undertaken contracts for which their experience did not particularly fit them. The big problem we have before us is to secure an adequate supply of experienced labor and competent shipyard organizations to direct it. The first contract was let on April 27, 1917. During that and successive months contracts were let as follows [reading]:

Month.	Number of contracts.	Number of vessels.	Tonnage.
April	1	12	42,000
May	9	76	854,200
June	20	137	646,900
July	24	138	591,800
August	25	110	424,300
September	12	185	1,142,500
October	6	114	934,200
November	46	192	1,054,400
December	4	35	326,800
Total	146	996	5,517,100

Senator NELSON. What proportion of those are wooden vessels, and what proportion are steel?

Mr. HURLEY. I have that information here; I will give you that in a moment [continuing reading]:

Of the total number of yards in existence on April 27, the capacity of the following yards was largely absorbed by the needs of the Navy Department for destroyers and mine sweepers, and by private contracts:

Bath Iron Works, Bath, Me.
Fore River Shipbuilding Corporation, Fore River, Mass.[1]
New York Shipbuilding Co., Camden, N. J.[1]
William Cramps & Sons Shipbuilding Co., Philadelphia, Pa.[1]
Newport News Shipbuilding Co., Newport News, Va.[1]
Seattle Drydock & Construction Co., Seattle, Wash.[2]
Union Iron Works, San Francisco, Cal.[1]
Alabama Drydock and Shipbuilding Co., Mobile, Ala.[2]
Todd Shipyards Corporation, New York.
Staten Island Shipbuilding Co., Port Richmond, N. Y.[1]
Standard Shipbuilding Co., New York, N. Y.[1]
Pennsylvania Shipbuilding Co., Philadelphia, Pa.[1]
Chester Shipbuilding Co., Chester, Pa.[1]
Pusey & Jones Co., Wilmington, Del.[1]
Baltimore Drydock & Shipbuilding Co., Baltimore, Md.[2]
Sun Shipbuilding Co., Philadelphia, Pa.[2]
Charles L. Seabury and Gas Engine & Power Co., Morris Heights, N. Y.
New Jersey Drydock & Transportation Co., Elizabethport, N. J.

It was therefore necessary, in order to meet the needs of the program fixed, to construct not only new yards for the building of wooden ships, but also to construct additional yards for the construction of steel ships. The plan developed by our predecessors to standardize ship design and to build these standard ships in large numbers in specially equipped yards in which the assembly of material fabricated in existing structural steel and machine shops in the country could be carried on, is sound and will give a tremendously increased ship production at relatively small expense for new construction, and without carrying with it excessive labor congestion at the yards.

A considerable portion of the effort of the organization has thus far been directed toward the completion of these so-called fabricated and other newly organized plants, the money expended up to December 1 for this purpose being $9,651,000. I am happy to say that the first three keels in these plants will be laid this month and that the progress of the work of the yard construction itself is such that we can promise fairly full operation during the spring of 1918. The fact that hulls have actually been completed within 64 days on the Pacific coast gives bright promise of the large capacity which these fabricated yards are bound to turn out. I am mentioning this largely to indicate that the work thus far has been in many cases preparatory and that it has carried with it the usual amount of annoyances and disappointments, but this period of preparation is getting rapidly behind us and the period of actual ship construction in full accordance with our plans is immediately before us. As an indication of the progress which is being made in expanding the shipbuilding capacity of the country, permit me to say that the tabulated reports received from the various shipbuilding companies for the nine weeks beginning with October 6 show that out of 109 plants

[1] Ships requisitioned. [2] Ships under contract.

reporting the total number of employees for the week ending October 13 was 102,769, for the week ending December 8, 149,270, an increase of 45.2 per cent during nine weeks.

It must be borne in mind that all the shipbuilding effort is not confined to the shipyards, but that a very large portion of the propelling machinery, winches, steering gears, and other accessories are built in manufacturing establishments of the various industrial districts of the country, and these establishments are contributing thousands of operatives to the very respectable totals above given. This increase in labor employed is not due to the completion of new yards alone but indicates the success we are having of adding a second and even a third shift to existing shipyards which formerly were running only a single turn. We are thus tremendously intensifying the output of existing facilities in addition to the construction of new facilities wherever conditions and the capacity of the men behind the proposition justify it. In an organization that must be rapidly expanded to take care of rapidly increasing needs there must of necessity be sufficient elasticity, and, if need be, change so that the organization will be made responsive to the demands made upon it. As the pressure on our organization has increased, we have subdivided functions and added departments, and we are at present engaged in a further scheme of expansion so that annoying delays and errors of the past may be avoided in the future. Such organization as is being added contemplated largely a more direct supervision of the material and labor supply and has for its object the coordination of both to the general plan of construction which we have in mind, so that the greatest possible output of the existing and shortly to be added facilities will permit.

The task of the Emergency Fleet Corporation is not only the construction of new ships, but more particularly the fabrication of new facilities and the construction of new yards in which new ships could be built. It is only fair to state that with the tremendous expansion of the industry with the relatively few experienced organizations available, and the relatively small number of experienced workmen heretofore employed in our shipyards, some time must be granted for the proper expansion and development of the necessary labor and directing forces to man the newly created facilities. Time is necessary in the case of any organization both for the gathering of the necessary experience and for the development of the necessary team spirit so essential to successful operation, and it is hardly fair, therefore, to say that the newly created facilities shall from the very day they have been put into operation produce ships at the maximum capacity. According to the figures of the construction department of the Emergency Fleet Corporation, 1,427 ships of 8,573,108 dead-weight tons are under construction and under contract. Of these, 431 ships of 3,056,000 tons were already under construction or under order by private or foreign owners when the commandeering order went into effect on August 3d. The new tonnage of steel ships ordered is represented by 559 ships of 3,965,200 dead-weight tons. The wooden ships for which contracts have been placed represent 379 bottoms of 1,344,900 dead-weight tons, and there are in addition 58 composite ships of 207,000 dead-weight tons. The output of the various yards will increase progressively, as experience grows and man power is increased. This is a well-known fact in the growth of

every new industry, and it is idle, in making predictions of the coming year's ship production, to lose sight of the greatly augmented production which the newly created facilities and growing experience will bring about.

As a record of accomplishment, let me add that since the requisitioning order went into effect on August 3d, 49 vessels of a total of 300,865 dead-weight tons have been completed and put into service.

Senator JOHNSON. I have observed you use the term "dead-weight tons." Would you explain the difference between dead-weight and gross weight?

Mr. HURLEY. Gross tonnage is the total cubical capacity of the entire hull, a unit of 100 cubic feet represents a ton. Lead-weight tonnage represents the actual weight of any kind of cargo which the vessel will carry to a certain depth or draft in the water. This point is always assumed to be the safe limit of loading.

Senator NELSON. These contracts that you refer to, are they what you would call tonnage contracts or percentage contracts? By those expressions, I mean, the percentage contract is where you make a contract with a man that you give him a certain percentage on what it costs him to build, and a tonnage contract is where you pay a man so much per ton; now what are these contracts, percentage contracts or tonnage contracts?

Mr. HURLEY. They vary. The flat price contract—you say that you will build a ship for so much, dead-weight; now we may provide in that particular contract to take care of any increase over and above the labor scale at the time the contract was signed. We do not have any cost plus contracts. That is, you build a ship for $1,000,000 and you get 10 per cent on that. We have a division in that contract—we reduce the percentage. The Navy is building some of its ships on a cost plus basis. Our contracts vary. Mr. Goethals placed a number of contracts at a flat price and some on a percentage basis. Admiral Capps made a number of contracts at a flat price and others on a definite fee basis.

Senator JONES. Please explain what you mean by percentage basis. I do not understand that yet.

Mr. HURLEY. In the early days of the corporation a few contracts were let on the basis of the contractor's receiving the actual cost of the vessel plus a profit of 10 per cent. The next step was to let contracts on a cost plus a fee basis, the contractor to be paid the actual cost of the vessel plus a fixed fee for his services.

The agency form of contracts in principle are as follows:

The contractor to construct the vessels at a plant owned by the owner on a cost plus sliding fee basis, the fee stated being approximately 5 per cent of the estimated cost of the vessels, with a provision, however, providing for the reduction of the fee in case the cost of the vessel exceeded the estimated cost, the minimum fee being approximately 4 per cent of the estimated cost. The contract also provided for an increased fee in case the actual cost of the vessel was less than the estimated cost. In this connection it is noted that in such case the saving effected was divided in three parts, one part was to go to the corporation, one part to the contractor, and the remainder to be distributed among the workmen.

For some time past the corporation has favored a straight lump-sum basis form of contract, in some cases with certain protections

against increased material and labor costs. Where the probable cost of work is not known, however, and can not be agreed upon the corporation has entered into a few contracts with reliable yards under a cost plus fixed fee basis, the fee named being about 10 per cent of the estimated cost.

Senator JOHNSON. It was suggested that perhaps the difference between gross weight and dead weight might not be explained. Please explain that a little further.

Mr. HURLEY. The dead-weight tonnage is about 50 per cent greater than the gross tonnage on cargo vessels. A cargo ship of 7,500 tons dead weight is about 5,000 tons gross. We figure dead weight in this country in all our contracts, and in England they figure gross. The dead-weight is the total carrying capacity of the ship, everything she can carry—coal, stores, freight.

Senator MARTIN. You mean by dead weight the weight a ship can carry?

Mr. HURLEY. Yes, sir.

The CHAIRMAN. The displacement in cubic feet when floating in salt water divided by 35, and by 36 in fresh water, gives you the total weight of the ship and cargo in tons—35 cubic feet of salt water weighs 1 ton.

Senator JONES. Can you tell us when you expect the last ship on the contract to be completed?

Mr. HURLEY. No; I can not tell.

Senator JONES. You do not expect them to be completed this next year?

Mr. HURLEY. It depends on conditions; 300,000 tons of the amount I have given here is in recent contracts; part of it is in the Alexandria contract. That is just started; they have taken an old shipyard over there.

Senator JONES. Have you any limit of time upon the completion of these ships, or any of them, under those contracts?

Mr. HURLEY. Yes.

Senator JONES. If so, can you give me an idea of how many have a limited time within which to be constructed?

Mr. HURLEY. On the Senator's suggestion, when it comes to the amount of tonnage we are going to deliver, I would like to show you all the figures we have on that and would like to have that private.

Senator NELSON. I would like to know how many ships have been actually completed since the board was created; that is, have been actually completed and built under your auspices, and how many vessels you have commandeered have been put forth; I mean actually put into service. But you may regard that as confidential——

Mr. HURLEY. Oh, no. Forty-nine ships, of 300,000 tons capacity, in service now, put in service since August 3.

Senator NELSON. Those are commandeered ships?

Mr. HURLEY. Yes. The first Emergency Fleet Corporation ship was built in 64 days in Seattle, and it was an 8,800-ton ship. She will be in service the day after Christmas.

Senator NELSON. Most of those commandeered ships were English or Norwegian ships, were they not?

Mr. HURLEY. I have the figures; I can give you the figures in regard to that.

Senator NELSON. No matter about that. But outside of those you have commandeered, how many ships have been built under the auspices of the Shipping Board or corporation?

Mr. HURLEY. We have launched four ships—two of steel and two of wood. We have a number of ships in the course of construction that will soon be launched.

Senator NELSON. But that one at Seattle is not completed?

Mr. HURLEY. No. Of course, the keels of those ships were not laid until June and July, and a number of the new yards did not have the facilities. We could not get into the old yards because they were filled up with the foreign ships and by the Navy, and so in order to build these ships we had to build new yards, unless we found a yard that was ready to take on new contracts. Seventy-four new yards were started by the Emergency Fleet Corporation, in order to have an opportunity to build ships.

Senator NELSON. So practically all the ships you have got are commandeered ships?

Mr. HURLEY. Yes; outside of those under construction.

Senator NELSON. That you took from the outside parties that built them?

Mr. HURLEY. Yes.

Senator NELSON. Do you not think we could have gotten those ships with lots less machinery and less expense, those commandeered ships, than it has taken to get them from your board? It was simply a matter of taking them over, commandeering them, it was a simple matter?

Mr. HURLEY. It was; we took them over and paid for them.

The CHAIRMAN. In your statement you have quite an item arising from charters, and hire of vessels. Did you charter those commandeered ships or do you operate them?

Mr. HURLEY. We have been turning most of them over to the War Department.

The CHAIRMAN. You have here $4,212,360.63.

Mr. HURLEY. That item is for charter hire and freight from ex-German and ex-Austrian vessels and is not earnings from commandeered or requisitioned ships.

The CHAIRMAN. And you derived that much from that source?

Mr. HURLEY. Yes.

Senator JOHNSON. And you requisitioned ships from our own people here?

Mr. HURLEY. Yes. We control all the shipping.

Senator JOHNSON. Did you have anything to do with these interned German vessels?

Mr. HURLEY. Yes; of those that the Navy did not take over, we repaired 500,000 tons. That was the emergency proposition. The boilers were in bad shape and they had to be rebuilt.

Senator JOHNSON. Those are in service now?

Mr. HURLEY. Yes; all but two or three.

The CHAIRMAN. Who determines the types of the various ships; for instance, beginning with the wooden ship?

Mr. HURLEY. Our naval architect, Mr. Ferris.

The CHAIRMAN. Is he still with you?

Mr. HURLEY. Yes.

The CHAIRMAN. How long has he been with the board?

Mr. HURLEY. He has been with it since he was appointed by Mr. Goethals. He was the appointee of Gen. Goethals, and Admiral Capps kept him.

The CHAIRMAN. You mean that he decided the question of the various types of ships that the board ordered?

Mr. HURLEY. Mr. Ferris designed the Ferris type of wooden ship, a 3,500-ton ship, that is standard. Then he designed a 5,000, a 7,500, and an 8,000 ton ship.

The CHAIRMAN. And the composite ship?

Mr. HURLEY. The composite ship is the steel frame with wooden——

The CHAIRMAN. What is the tonnage of those ships?

Mr. HURLEY. The composite ships are 3,500 and 4,000 tons.

Senator Nelson. Are you building any cement ships?

Mr. HURLEY. Yes. A 4,500 cement ship is being built in San Francisco. We are following that very closely.

Senator NELSON. What is that tonnage?

Mr. HURLEY. 4,500 dead-weight tons. We are not building that; that is private capital.

Senator NELSON. But you let the contracts?

Mr. HURLEY. No; we agreed not to commandeer it if it was successful. That is the only thing we are interested in. We gave permission to them to build it on account of it being an experimental ship.

Senator HARDING. Apropos of that, the Shipping Board has put a ban on all private contracting throughout the country, has it not?

Mr. HURLEY. That is the assumption. As a matter of fact, we are simply exercising control.

Senator HARDING. Has that policy proven a contribution to the shipping of the country?

Mr. HURLEY. Well, at the moment, on account of the labor situation, on account of the shortage of timber, and not being able to carry out our schedules as rapidly as we would like, we felt that it would be a great mistake to have private parties, particularly foreign Governments, come in here and build either wood or steel ships, and interfere with our labor question. We upset the labor situation ourselves by starting the new yards, and if a foreign country were to place a contract for ships at a high price, the builders could go into the market and hire every man they could and take our materials and pay a premium. We must control it in order to carry out our program. It is a very hard thing for a private shipbuilder for us to turn him down and say, "You can not do this," but we were forced to do it for our own protection.

Senator HARDING. You were doing that to guard against an increased expenditure on shipping through private contract?

Mr. HURLEY. Yes.

The CHAIRMAN. What is that limitation, what is the exact wording about that?

Mr. HURLEY. Well, we have not any exact rule. Here is what the foreign Governments want: England wanted to order 28 wooden ships from a private shipbuilder, and they would not place the order unless we would agree not to commandeer the ships. We would

have to agree to let the English flag fly on those ships, and we felt it would be a great mistake, not knowing what our requirements would be later, to waive that and allow England to build these ships, not only upsetting our market on materials and on labor, but agreeing not to commandeer the ships after we had commandeered all the ships from other Governments prior to that.

The CHAIRMAN. Will you allow me?

Senator HARDING. Certainly.

The CHAIRMAN. That was in reference to foreign contracts; but suppose an American citizen wants to contract with a shipyard to build ships. What is your control over that situation?

Mr. HURLEY. Well, unless he can show that he has plenty of timber, we refuse to give him permission——

The CHAIRMAN. As to any size whatever?

Mr. HURLEY. Well, we have established a 3,500-ton, a Ferris type. If they could satisfy us that it would not interfere with our timbers—it is a serious situation getting this lumber for the present schedule; we have 1,500 carloads of fir now coming from the Pacific coast, for the purpose of finishing the wooden ships on the Gulf and the Atlantic coast, which the Southern Pine Association agreed to furnish lumber for, but which they can not do, and that has retarded that work. They just have not got the extremely large timbers required for a 3,500-ton ship.

Senator NELSON. On the Pacific coast?

Mr. HURLEY. Oh, they have it on the Pacific coast, and we have let contracts there recently because they have the timber there. They have not the large timbers in sufficient quantities in the South.

If Senator Fletcher, for instance, came to the American Ship Building Co. and wanted a ship, you would fix the price?

Mr. HURLEY. Yes; you would have to submit the price to us, and we must approve it before you could take the contract.

Senator HARDING. And that has confessedly decreased production very much, has it not?

Mr. HURLEY. Do you mean for the private yards?

Senator HARDING. Well, has it not had the tendency to decrease the output of these yards?

Mr. HURLEY. Well, we are planning to keep every yard running to its maximum. We do not know of any yards that are short of orders, any ways that are vacant in the country, there are none to my personal knowledge; they always figure four or five months ahead for their contract, so that when one ship goes off the ways they have an order to take its place, and I do not know of a vacant way in this country waiting for an order, and we would rather have them filled for the Government than for private parties.

The CHAIRMAN. How many ships do you allow on the ways? For instance, suppose a man has nine ways, how many ships will you allow him to contract for? You have reference to that, have you not?

Mr. HURLEY. Yes; I will tell you, Senator, on the Pacific coast they have been breaking all records. Where it requires four and five and six months to launch a ship from a way, of course they have to have more ways. These fabricated ships they are figuring on launching very quickly, probably in 70 days; that is their plan, and

in that way they turn out a large volume. But it all depends on the locality. On the Great Lakes they launch a 3,500-ton ship in 65 to 70 days. They will launch an 8,800-ton ship in San Francisco, Seattle, Los Angeles, or Portland in 75 days. And the minimum has been 64 days, and they now have a ship on the ways just started, laying the keel, in Seattle, and they are figuring on launching it in 50 days. That is an 8,800-ton ship.

Senator NELSON. They are steel ships?

Mr. HURLEY. Yes.

Senator HARDING. Do you have a policy of paying a bonus for expedited work?

Mr. HURLEY. Yes; we are doing that now; instead of increasing the wages we have allowed a 10 per cent increase in wage where a man would work 48 hours a week.

The CHAIRMAN. How many wooden ships are contracted for now?

Mr. HURLEY. 379.

The CHAIRMAN. And those are all 3,500 tons?

Mr. HURLEY. All 3,500-tons ships.

The CHAIRMAN. And what do they cost?

Mr. HURLEY. The hulls cost about $300,000 and the machinery about $200,000 installed.

The CHAIRMAN. About $150 a ton?

Mr. HURLEY. $500,000.

The CHAIRMAN. About $150 a ton?

Mr. HURLEY. About $140 a ton.

The CHAIRMAN. How many of the composite ships?

Mr. HURLEY. Of the composite ships we have 58.

The CHAIRMAN. And what tonnage?

Mr. HURLEY. Two hundred and seven thousand.

The CHAIRMAN. Are they all different tonnage, or do they run——

Mr. HURLEY (interposing). Three thousand five hundred tons and 4,000 tons.

The CHAIRMAN. The composite ships?

Mr. HURLEY. They cost $133 a dead-weight ton.

The CHAIRMAN. And how many steel?

Mr. HURLEY. Five hundred and fifty-seven.

The CHAIRMAN. And they cost how much?

Mr. HURLEY. $166 a dead-weight ton.

The CHAIRMAN. So the wooden cost us about $140 for complete ships and about $84 for hulls only, the composite about $133, and the steel about $160 a ton?

Mr. HURLEY. Yes. Wood and composite vessels can only be constructed of small carrying capacity, and while of somewhat less cost per ton than steel ships they are much less economical to operate and much less durable.

The CHAIRMAN. That is that much per ton?

Mr. HURLEY. That is the average; yes.

The CHAIRMAN. And those steel ships are of what size?

Mr. HURLEY. Five thousand, 7,500, 8,800, and some 9,000.

The CHAIRMAN. Is there any reason for having those vary in tonnage?

Mr. HURLEY. Nothing, except that we do not have any two different standard ships in any one yard, like the old way of having 10

different kinds of ships in the same yard. We try to keep one standard ship in a particular yard. If you have a contract for 10 ships you would have 10 of one kind, outside of a tanker or two that you might take.

The CHAIRMAN. Well, ordinarily a man would take, say, an 8,800-ton ship and he would just as soon have it 9,000 tons, or say 9,100, he would just as leave have it 8,800? Ordinarily, where you can handle an 8,800-ton ship you can handle a 9,000 ton ship?

Mr. HURLEY. Yes.

The CHAIRMAN. Would it not have saved time if you had agreed on a standard of 9,000 tons and prepared your plans and specifications for that ship, and had them ready in the office, so that any bidder could come there and get those plans and specifications and bid on that ship, rather than have him go out and prepare plans and specifications for different sizes?

Mr. HURLEY. I think the standardized ship would be a good thing, but some of these yards could not build—of course, on the lakes we have to have a small ship because we can not get it through the canal if it is very large. Three thousand five hundred tons is the limit there. In some of the yards the ways would not take a 9,000-ton ship. So in order to expedite matters—I am only reviewing what Mr. Goethals and Admiral Capps planned; I did not get into the designing of the standards. But the tendency is for the larger-sized cargo ship; that is most economical to operate.

Senator NELSON. But each group could be standardized, I suppose?

Mr. HURLEY. Oh, yes; they do not vary at all.

The CHAIRMAN. Coming down to the practical working of things, you want to build ships. Say I want to contract to build ships; that is, I am willing to go into that business. I come to you to find out what kind of ships you want built, and see if I can make a contract. What is the process; what is the procedure; to whom do I go and take that matter up first?

Mr. HURLEY. You take it up with the general manager.

The CHAIRMAN. The general manager?

Mr. HURLEY. Yes.

The CHAIRMAN. Then what does he do?

Mr. HURLEY. He will refer you to the contract manager, the contract department.

The CHAIRMAN. Who has charge of that?

Mr. HURLEY. Mr. Radford.

The CHAIRMAN. He is connected with the Navy?

Mr. HURLEY. Well, not recently; he has been away from the Navy for three or four years; he has been out in business, in the manufacturing line.

The CHAIRMAN. Where has he been manufacturing?

Mr. HURLEY. I think he was in some of the munition plants. He is a contract man; drew contracts for the Remington Arms and some of the large manufacturing establishments. He was formerly a naval constructor.

The CHAIRMAN. I take it up with him. What does he do?

Mr. HURLEY. Submits complete standard plans and specifications for the type of ship you can build, and then you figure what you can do.

The CHAIRMAN. Do I have to get the design and the plan?

Mr. HURLEY. The blue prints and everything are furnished; he has them right there.

The CHAIRMAN. He hands them to me?

Mr. HURLEY. Yes.

The CHAIRMAN. Then I take those and prepare my bid?

Mr. HURLEY. Yes.

The CHAIRMAN. Then what is the next thing I do? I submit it to somebody?

Mr. HURLEY. Our contract man that you got your blue prints and specifications from.

The CHAIRMAN. What does he do?

Mr. HURLEY. He investigates your financial standing, and your ability to do things and what your experience has been, and whether you have any men about who knows something about shipbuilding, whether you are going to employ a lot of men away from the other shipbuilding plants; those things are checked up, and if your prices are right, and your responsibilities are such that you are entitled to a contract, the matter is taken up with the general manager, and you go in with the general manager and discuss the terms and everything; and then he works with the contract department and ascertains to his satisfaction that you are the right man to take this contract, and if you satisfy the general manager he approves of it and you get your contract.

The CHAIRMAN. And the general manager then passes the contract up to you?

Mr. HURLEY. To the president; yes.

The CHAIRMAN. And you sign it?

Mr. HURLEY. Yes.

The CHAIRMAN. So that, in the first instance, the matter might have stopped with Mr. Radford if he concluded that he did not like the showing that was made; and in such case that would end it?

Mr. HURLEY. Oh, no; you could appeal to me; we are glad to see everybody, and we do see everybody down there.

The CHAIRMAN. Now, it ought not to take a great deal of time from the time I get the plans and specifications, and I ought to be able to make my bid the next day. It ought not to take a great length of time for Mr. Radford to determine whether or not I would be entitled to a contract.

Mr. HURLEY. If you are an old established shipbuilder, it does not require much time, but if you are going to build a yard the district manager in that locality is told to investigate, probably telegraped to, to investigate the site. We have had a few cases where a yard was not desirable, and the man that came up thought he could build ships in a particular place, and we are very anxious that the district managers should look the ground over, or their engineers, and then report. That might delay it. But a standard shipbuilder, a man who understands the game, does not require much time.

The CHAIRMAN. Has Mr. Radford much force under him?

Mr. HURLEY. It is being expanded rapidly to relieve him.

The CHAIRMAN. How many of these district officers have you?

Mr. HURLEY. Ten district officers; we are going to add a few more and divide up some of the districts to relieve them.

The CHAIRMAN. What are the duties of the district officers?

Mr. HURLEY. The district officer is the local representative of the Emergency Fleet Corporation. Under him are inspectors. If you are building ships you have a payment coming due and you can not receive that money until the district officer has inspected that work and approved of the payment to the main office.

The CHAIRMAN. Has he authority to make contracts?

Mr. HURLEY. No; he can make suggestions.

The CHAIRMAN. In the way of purchasing material or anything of that sort: he has nothing to do with that?

Mr. HURLEY. No; that is purchased by the individual contractor anyway; unless it is engines and boilers that we may be buying through our purchasing department.

Senator NELSON. Do you have any superintendents or inspectors present at these yards?

Mr. HURLEY. Oh, yes.

Senator NELSON. To see the construction of the vessels right along?

Mr. HURLEY. Yes, sir.

Senator NELSON. Every ship?

Mr. HURLEY. Every ship.

Senator NELSON. You call in inspectors?

Mr. HURLEY. Inspectors under the district officer. The district officer may have three or four cities; there are inspectors in all yards.

Senator HARDING. Suppose the Emergency Fleet Corporation contracts with me as a shipbuilder for, we will say, ten vessels of a given type. The contract is completed; may I as the manufacturer then proceed and build those without any further interference from the Fleet Corporation?

Mr. HURLEY. You mean after the contract is drawn and the specifications submitted by you?

Senator HARDING. Yes.

Mr. HURLEY. That is what should be.

Senator HARDING. That is not quite what I asked. I asked if that is the case, if a private manufacturer is allowed to go ahead and complete his contract?

Mr. HURLEY. Under the supervision of the district manager and inspector.

Senator HARDING. I will be perfectly frank as to why I asked the question, and I think it is important to develop it. I get a complaint from the contractor that the difficulty in the matter is due to harassment and changes of plans after the contracts are made.

Mr. HURLEY. I think that is true; that that has been the case.

Senator HARDING. That has existed heretofore?

Mr. HURLEY. Yes, sir.

Senator HARDING. But that is being corrected now?

Mr. HURLEY. Yes, sir; as rapidly as we possibly can.

Senator HARDING. A moment ago we were talking about wooden-ship contracts. I do not care to go into the old controversy, but you are building approximately 250 wooden ships?

Mr. HURLEY. Three hundred and seventy-nine.

Senator HARDING. I came within two-thirds of it. You are building the type originally designed by Mr. Ferris?

Mr. HURLEY. Yes.

Senator HARDING. Was there a failure of the original design?

Mr. HURLEY. The original schedule was not complete. In the specifications stating the amount of material they did not put in sufficient materials. Later they found it would have to be strengthened in several places.

Senator HARDING. And enlarged the keel?

Mr. HURLEY. Yes; and it required an additional number for that as well as for the shortage in the original schedule.

Senator HARDING. Is it true or not that the changes reduced the cargo capacity 700 tons per ship?

Mr. HURLEY. I think it will reduce it somewhat; I do not know the exact amount; I have heard different figures stated. It will reduce it. The estimate is about 150 tons.

Senator HARDING. Well, was this change in plan developed after we had our controversy between wood and steel vessels or after the failure of the first ship launched?

Mr. HURLEY. It was during the course of construction, when some of the builders did not know anything about building wooden ships, and started to ask a lot of questions, and some of those that knew something about it asked questions, and Mr. Ferris arrived at the conclusion that he should strengthen, and issued an order to that effect.

Senator JOHNSON. That was about when, if you please.

Mr. HURLEY. I think that was about two months ago. I am guessing a little at that.

Senator HARDING. Then we will be disappointed to the extent of a quarter of a million tons in the wooden-ship program, if that reduction of cargo capacity is as I have stated it?

Mr. HURLEY. If it is 700 tons on the carrying capacity, yes. That amount has been questioned, but I am not prepared to say that it is not the correct figure. As I said, it is estimated at 150 tons.

The CHAIRMAN. Then the changes in design, in these specifications, were all made in the judgment of Mr. Ferris, or does he submit that to the board?

Mr. HURLEY. Admiral Capps and Admiral Bowles and Mr. Ferris had the changes made. Mr. Ferris made the changes in connection with Admiral Bowles and Admiral Capps.

Senator JONES. Just a moment in connection with what you were asking a moment ago about getting those contracts. If a man comes for a contract, or goes to Mr. Radford, and he wants to make an investigation, as to his experience, and so on, that is referred out then to the district man?

Mr. HURLEY. Yes.

Senator JONES. Is his report final, whether favorable or unfavorable?

Mr. HURLEY. No.

Senator JONES. The board is following a different policy now from that inaugurated in the first place?

Mr. HURLEY. The Board of Trustees does not take any part in the management of the property; they could not.

Senator JONES. Well, the manager——

Mr. HURLEY. Yes.

Senator JONES. Would his report be final whether favorable or unfavorable to the shipbuilder?

Mr. HURLEY. What happens is this: If you come in there and you finally get a report from the district manager that is unfavorable, naturally you want to talk to some one higher up.

Senator JONES. Yes.

Mr. HURLEY. And 99 out of 100 times they get to my office, and we investigate and find out. We are keen to have men build ships, first, and to contract with good companies. We encourage them. We have a case in San Diego now where a very responsible concern in submitting their figures to build 15 or 20 steel ships.

Senator JONES. So the report of the district officer is simply advisory?

Mr. HURLEY. Yes; chiefly from an engineering standpoint; to make sure that the place where the ship is going to be built is all right, and then the financial part of it; we have the banks and others to approve it.

Senator JONES. As I understand, you are still letting contracts for wooden ships?

Mr. HURLEY. Yes.

Senator JONES. Then the impression that got out sometime ago is erroneous.

Mr. HURLEY. Now, here is the point. Where you have a wooden-ship yard and you want to build wooden ships, we are in favor of that; or you want to expand a wooden-ship yard and you have your organization, we are in favor of that. We have no desire to retard the progress of wooden-ship building. If you are in that business, we would encourage you to go ahead and build wooden ships; but if Smith or Jones came and wanted to start a new wooden-ship yard, we would be reluctant about letting them start, even on the Pacific coast, where they have the timber. We have allowed a contract or two in the South, where they also have the timber, directly connected with their shipbuilding yard. We watch that carefully. In the same way in the steel-ship yards we are trying to expand the present shipyards we now have and add two or three ways to old shipyards, and also the new ones that have been erected and are building ships. We have a plant on the Pacific coast, the plant of Moore & Scott, at Oakland, where we are building 7 ships now, and 16 more next year. Where their plant is was nothing but a prairie in January 1, 1916. We have encouraged that plant.

Senator JONES. Here is one particular case I want to call to your attention now. A little over a month ago I was out in Tacoma and there was a company there that was building all wooden ships. They stated that they were in the private shipping business, building small ships, and they did not care for any Government contracts; but that the Government officers urged them to go into Government work, and finally they said to the Government officers that if the Government would give them a contract for two wooden ships, they would change their plant and go into that work. Well, they said all right. But when the contract was prepared there was a contract for only one wooden ship. The Government officers said "Go ahead and we will give you another one." They granted the contract for the one wooden ship. They have a big crane that could

be used on another way as advantageously as the one they have, and they were unable then to get a contract for another ship.

Mr. HURLEY. Why?

Senator JONES. The department would not give it to them.

Mr. HURLEY. There must have been some reason.

Senator JONES. No; they did not give any reason.

Mr. HURLEY. Do you know the name of that concern?

Senator JONES. I think it is Barbar Brothers.

Mr. HURLEY. I will be glad to look it up.

Senator JONES. I was satisfied you would.

Mr. HURLEY. I am apprised they placed an order for one wooden ship. They have 73 men and two ways, one occupied by the Government contract and the other vacant.

Senator JONES. Yes; they could not get a contract for another ship, and they wanted it. They have steel piled up there idle for the ships. They have only 73 men, but they can do the work practically as advantageously on the other ship as on the one ship. That is what they are complaining about.

Mr. HURLEY. I will be glad to look that up and give you any information I have in regard to it.

The CHAIRMAN. Generally, you can allow two ships for each set of ways.

Mr. HURLEY. Yes; they have a big crane they can use handling things for two as well as for one vessel.

Senator HARDING. In furthering the development of private yards, we will say any new enterprise, do you plan in the contract a profit which can be used to amortize the investment made for this special service?

Mr. HURLEY. We have that matter up now, where a man wants to expand his yard and expend two or three million dollars. We are preparing a statement to the Treasury Department, covering a period of five years. Now, he does not need the addition, but he is putting up his addition for the purpose of building ships for the Government, say to the extent of $5,000,000 investment, and at the end of five years he ought to have some chance to show depreciation, say of 20 per cent or 10 per cent, and then appraise it at the end of that time. Several plans have been started but none adopted as yet.

Senator HARDING. I asked you the question because on the Great Lakes we have some very notable shipbuilding plants, and they are building for your Emergency Fleet some 60 or 75 thirty-five-hundred-ton ships and three-thousand-ton ships. They have none of the problems of housing workmen that you have on the Atlantic coast, their plants and equipment are quite ample for the shipbuilding trade of the Great Lakes; but as a patriotic performance they are perfectly willing to step in and build for this emergency. But they have been denied any sort of profit that could be applied to the amortization of the investments which would become useless after the war. That is why I ask whether it is the policy of the Shipping Board or the Emergency Fleet Corporation to encourage that sort of industry.

Mr. HURLEY. We have not acted upon it, but it is worthy of consideration, and we are trying to settle a number of claims now of contracts that are on our commandering order. For example, a shipyard building five ships for a foreign Government, say the New

York shipyard. They took the contract for $65 or $75 a ton a year and a half or two years ago and then found they were going to lose money on account of the war coming on and let contracts for four stock ships—what we call a stock ship—for themselves and sell on the market, for which they would receive from $70 to $75 a ton, if we had not commandeered them, to save their losses on the first five ships and probably get out at a profit. We came in and commandeered nine ships. We took them at the cost price. Of course, they are out quite a bit. We are readjusting that in letting new contracts to them and getting tonnage at a very low figure.

Senator HARDING. Apropos of the commandeered ships, there is a current publication that since Congress provided for the seizure of ships a number of vessels built for neutral powers or for citizens of neutral powers have been ollowed to go into their service, although we had a commandeering authority to put them in service under the American flag. Is there any truth in that statement?

Mr. HURLEY. Well, we took office July 27 and the commandeering order went out on August 3. There were two ships for the British and two for the French and one for Norway ready on that day, and we allowed those five to go, but we have not allowed any to go since then.

Senator HARDING. None launched since then.

Mr. HURLEY. No.

Senator NELSON. Were there not some before that that went?

Mr. HURLEY. Yes; but the order was not in effect.

Senator NELSON. But was there not a large number that were ready before that, vessels that were ready that they allowed foreign governments or citizens to take away?

Mr. HURLEY. Of course, any ship that was built; they were allowed to take away any time before August 3. As for the number, I am not familiar with it.

Senator NELSON. I wish you would look it up and let us know how many ships would have been saved here if the board had moved. I mean after the board was organized, how many ships they could have saved for the Government if they had tried to if they had resorted to commandeering?

Mr. HURLEY. There were 15.

Senator HARDING. You speak of the commandeering order as of August 3.

Mr. HURLEY. Yes.

Senator HARDING. The Congressional authority for that was passed much earlier, was it not?

The CHAIRMAN. It was provided for in the act of June 15, 1913.

Senator HARDING. That was the appropriation bill?

The CHAIRMAN. Yes.

Senator NELSON. It was really before that I think.

The CHAIRMAN. It was approved June 15. I have the act here.

Senator HARDING. Then, if there was failure to secure shipping built for citizens of neutral powers prior to August 3 it was a failure in some executive branch of the Government other than the Shipping Board?

Mr. HURLEY. No; it was up to the Shipping Board to issue their commandeering order, and Gen. Goethals on July 13, I think—he

did not issue any order but was about to issue an order when these differences came up, the differences between Mr. Denman and Gen. Goethals. I saw a letter wherein he stated that he was going to issue the order, but it was not issued when we came in, July 27, and we started and issued it August 3.

Senator HARDING. Well, through the controversy in the Shipping Board we did let slip a lot of shipping?

Mr. HURLEY. Some one did.

Senator JONES. The first authority for commandeering had come from the President.

Mr. HURLEY. Yes; July 11.

Senator JONES. What I would like to know is how many ships of that character got away between the passage of the act authorizing the President to commandeer ships, June 15, and July 11?

Mr. HURLEY. I will look that up and will be glad to let you know about it.

Senator NELSON. That got away?

Mr. HURLEY. That got away.

Senator JONES. What I would like to know is, between June 15 and the time of the order how many got away and the size of the ships.

Mr. HURLEY. Yes.

Senator JONES. And, if possible, to whom they went.

Mr. HURLEY. The different countries?

Senator JONES. Yes.

Mr. HURLEY. Yes; we have that.

The CHAIRMAN. The Executive order, you say, was issued July 11?

Mr. HURLEY. Yes.

The CHAIRMAN. And the board acted August 3?

Mr. HURLEY. Yes.

The CHAIRMAN. You spoke of the order having been issued August 3, I thought. You mean that was the order of the board?

Mr. HURLEY. Yes.

The CHAIRMAN. But the Executive order of the President came July 11?

Mr. HURLEY. Yes, sir.

The CHAIRMAN. Has there been any question raised, Mr. Hurley, about the smaller wood ships being suitable for the coastwise trade: I mean such as you are building?

Mr. HURLEY. No. They are sea-going ships.

The CHAIRMAN. In this appendix to the report appears a list of employees, compensation of employees of the United States Shipping Board. I take it that is not complete, not a complete list of all the employees of the Shipping Board, is it?

Mr. HURLEY. Not of the Emergency Fleet Corporation, but it is a complete list of the employees of the Shipping Board.

The CHAIRMAN. Is it a complete list?

Mr. HURLEY. Yes.

The CHAIRMAN. You have not given the employees of the Emergency Fleet Corporation?

Mr. HURLEY. I do not think we have. The number is 767.

The CHAIRMAN. That number refers to what, now?

Mr. HURLEY. To the Emergency Fleet. That includes our inspectors and engineers and our entire staff.

Senator NELSON. District officers and all?

Mr. HURLEY. Yes.

Senator NELSON. That is of the Emergency Corporation?

Mr. HURLEY. Yes.

Senator NELSON. How many of your commission proper outside of that?

Mr. HURLEY. The number of men on the Shipping Board in addition to that, do you mean?

Senator NELSON. Yes, approximately.

Mr. HURLEY. About 60.

Senator NELSON. Now I wish you would prepare a list of all these contracts, giving the date of each contract, the name of the contractor, of the place where the ships are built, and then number your contracts and refer to them in the schedule. You do not care about having this private, do you?

Mr. HURLEY. No.

The CHAIRMAN. I understood that the design for the wooden ships now being contracted is the Ferris design?

Mr. HURLEY. Yes.

The CHAIRMAN. And that was modified somewhat from the original design first proposed?

Mr. HURLEY. Strengthened, Senator, in several places.

The CHAIRMAN. Was there some delay caused by that; that is, had some work started and then changed after the work was started?

Mr. HURLEY. Yes.

Senator JONES. Mr. Ferris was preparing the designs for steel ships.

Senator NELSON. Do you want this list confidential? I see it is marked confidential.

Mr. HURLEY. We can fix it up for you.

Senator NELSON. Be sure you put the locality of the yard and then also if you have advanced any money to them——

Mr. HURLEY. And how we advanced it; the method employed?

Senator NELSON. Well, whether you have advanced any money toward the construction of the yard, the enlargement of the yard, and, if so, how much in each case, so that we can see that at a glance.

The CHAIRMAN. It will be printed in the record.

(The matter referred to was subsequently submitted and is printed in full in the testimony of Admiral Bowles on page 14 of this hearing.)

The CHAIRMAN. In this list of employees you mention some that I might ask you about. "Special experts." What does that mean?

Mr. HURLEY. The duties of special experts correspond to those of "special experts" in other departments. Most of the "special experts" in the employ of the Board, however, are highly trained men in their respective professions. Such men are not obtainable through civil service.

The CHAIRMAN. "Examiner." What are his duties?

Mr. HURLEY. The duties of examiners of the Board are of a legal character. They are especially qualified to preside at conferences, take testimony, and submit their recommendations to the Board.

The CHAIRMAN. Would it take any time, if, for instance, you wanted ships built and the party desired to build ships, if he could go at once to Mr. Ferris and get the plans and specifications from

him, and then make his bid to the general manager and cut out all these intervening steps between the architect and the general manager?

Mr. HURLEY. I think that that would not expedite matters. Mr. Ferris is a technical man, and Mr. Radford has all the drawings. The man knows about the price of a ship he would like to build, and the delays on the start, Senator, were on account of the men that were bidding, and they did not know themselves what they wanted to do, and it required some time. That being reorganized and put on a sound business basis, that required some time, you can not do that in a short time with everybody rushing in. We have had hundreds of men who wanted to build ships that were honest and sincere in their desire, and who have never finished a ship and never will. We have a few dead ones that got contracts that will never finish a ship.

The CHAIRMAN. You will not have those difficulties hereafter when you have established your yards, and will have no occasion for delays you had to contend with at first?

Mr. HURLEY. No; but even with men who start out all right, we may have more or less trouble. We have to keep in touch with them.

Senator NELSON. Have you many instances in which you had contracts with individuals or corporations or firms who at the time you made the contracts with them really had no shipyards.

Mr. HURLEY. Yes; quite a few of them, but very few of them that have not turned out all right. We have watched them carefully, helped them.

Senator NELSON. Will you put that into your statement? Put those cases in where the men you made contracts with had no shipyards when you made the contract.

Mr. HURLEY. We had to build 74 new shipyards in cooperation with them.

Senator NELSON. That may be where you have helped them to increase their capacity; but suppose I came out of the woods in Minnesota and asked you to give me a contract for building ships on Lake Superior and I had not anything in the way of a plant, not even a homestead or a shack there. You would give me a contract, may be. In that case you would help me to build a yard, would you not; help me financially?

Mr. HURLEY. Yes.

Senator NELSON. Now, have you had many such cases?

Mr. HURLEY. Forty-two where they have been helped or will be helped.

Senator NELSON. Where they had no yards at all.

Senator SHIELDS. You could not well have new yards built by new parties going into business unless you agreed to give them work in the yards after they were equipped, could you?

Mr. HURLEY. Yes; we helped them.

Senator SHIELDS. You necessarily had to promise a contract or make contracts with them; no man would build a yard without some such assurance?

Mr. HURLEY. No.

Senator NELSON. In all those cases where you made those contracts were they practical shipsbuilders or were they simply general exploiters, or men who had not been engaged in shipbuilding?

Mr. HURLEY. We had very few cases where they failed.

Senator SHIELDS. I think he said he had some dead ones.

Mr. HURLEY. A very few, yes.

Senator JONES. When you say you helped them, do you mean you advanced them money?

Mr. HURLEY. Yes; and our district managers and inspectors watched every step, and they are going ahead to-day.

Senator JONES. Did you follow any rule as to what percentage you would advance?

Mr. HURLEY. As well as we could do so. We were pretty liberal to them, to some of them. You can not adopt any definite rule of that kind.

Senator JONES. Can you give any particular instance of this kind, of what help you gave and where that was?

Mr. HURLEY. We helped 42.

Senator JONES. I wanted to know whether there was any particular instance.

Mr. HURLEY. No.

The CHAIRMAN. How does that money come back; does it come back out of the contracts finally?

Mr. HURLEY. Yes. It applies on the contract. We advance them to start building and that applies on the contracts.

The CHAIRMAN. Then, in these cases up here you mentioned at Bristol and Newark and Hog Island, I understand you furnished the entire amount of money to build those yards?

Mr. HURLEY. Yes.

The CHAIRMAN. Is the title to that property vested in the Government—the title to the lands and the buildings and the whole thing?

Mr. HURLEY. The Government has a right to take over all those plants first, and then if the Government does not want them there is an appraisal made; but the Government has complete control over them all.

Senator JOHNSON. In your contract is there a time limit for construction?

Mr. HURLEY. In many cases we tried to have a time limit put in. It is pretty hard to force a man——

Senator JOHNSON. You have stated your program. Has that program been carried out with reasonable dispatch and diligence?

Mr. HURLEY. You mean from the day we started to the present time?

Senator JOHNSON. Yes, sir.

Mr. HURLEY. Not as fast as we would like to have it, but I think under the circumstances as quickly as it could be carried out.

Senator JOHNSON. Have there been any particular causes of delay?

Mr. HURLEY. Yes.

Senator JOHNSON. Will you state them, please?

Mr. HURLEY. The labor question first. For two or three months there was unrest, particularly on the Pacific coast. We had several strikes out there. We had strikes in many of the yards here, if not all the employees in a yard, at least departments of a yard, which demoralized and retarded the progress of the shipbuilding program. We have an industrial service now that we are endeavoring to help the shipbuilders with, particularly the small builders—and the large ones as well, because they require a great many men.

We have tried to improve that condition. We have employment bureaus. We have one in Seattle that has developed very successfully in the past four weeks, in connection with the Department of Labor. We have one started in Philadelphia, or, rather, about to start. The employers all agree to employ their labor through this central agency. Then when we go into the interior country, both on the west coast and in the interior, you know the shipyard employees are now exempt from the draft. We also have the power to draft from the Army experienced mechanics that are serving in the Army.

Senator JOHNSON. The difficulties of the labor situation, then are considerably minimized at the present time?

Mr. HURLEY. Yes.

Senator JOHNSON. Have any differences existing in the board interfered with carrying out the program?

Mr. HURLEY. Not since I have been on the board.

Senator JOHNSON. None of any sort?

Mr. HURLEY. No.

Senator JOHNSON. Chronologically, now, your advent was July 27——

Mr. HURLEY. Yes.

Senator JOHNSON. And with you came Admiral Capps?

Mr. HURLEY. Yes.

Senator JOHNSON. And Admiral Capps remained until when?

Mr. HURLEY. December 1.

Senator JOHNSON. He was succeeded by whom?

Mr. HURLEY. Admiral Harris.

Senator JOHNSON. And Admiral Harris remained how long?

Mr. HURLEY. Six or seven days; he did not come there until the 5th or 6th, and he left on the 14th.

Senator JOHNSON. And subsequently he was succeeded by whom, please?

Mr. HURLEY. Mr. Piez.

Senator JOHNSON. Now, so far as the Shipping Board is concerned, so far indeed as it has a related corporation, all has been done that is possible to carry out and execute this ship program?

Mr. HURLEY. As a corporation, an organization. Now, they have not as officers; we have not accomplished what we hoped to accomplish. Going over the same field, we would know more and probably increase the output in a number of places. But we had to go through that.

Senator JOHNSON. Were there any other causes that interfered with the execution of your program than the labor market?

Mr. HURLEY. No; that was quite general. At the present time we are in a fine position.

Senator JOHNSON. But what I ask is whether there was any cause in addition to that.

Mr. HURLEY. Yes; materials.

Senator JOHNSON. Will you state, please, in regard to that?

Mr. HURLEY. We have the transportation question; we are being delayed from time to time on account of the shortage of cars—more on the question of shortage of transportation than on the shortage of material. It is the same in the shipbuilding yards, but our traffic

board is improving that. We have a very efficient traffic board. The railroads also are trying to do everything they possibly can to help them.

Senator JOHNSON. You mean you have a traffic board connected with your board?

Mr. HURLEY. Yes; they follow up these particular shortages and have tried to get the cars moving.

Senator JOHNSON. Then, the program is well under way at the present time, is it not, with the prospect of being executed with the utmost dispatch?

Mr. HURLEY. Yes, Senator; I do not believe that we could add anything to it at the moment. We are going to expand and develop when the necessity arises, but we have the thing well in hand, and we are a going concern.

Senator JOHNSON. Pardon me, one other question. You have given us two reasons for possible delay or cause of delay in the execution of the program; first, labor; second, transportation. Is there any other cause that you recall?

Mr. HURLEY. In the wooden-ship building program there is the changing of the design.

Senator JOHNSON. That design was changed by whom?

Mr. HURLEY. By the mechanical department, after they found they did not have enough timbers for the decks and timbers large enough for the keels.

Senator JOHNSON. Was that mechanical department that made the change the same department as originally prepared the specifications?

Mr. HURLEY. Yes. There is another matter, and that is the housing problem. There is a shortage of houses in a great many of these shipyard towns, caused by this enormous expansion in this particular district. We are not troubled so much in the West, but we are very much troubled in the East on that account. At Sparrows Point we have a large shipyard, and they were short 3,500 men.

Senator JOHNSON. As I understood you as to the time ships will be put in the water, in the western shipyards, they run from 50 to 75 days. They can put ships in the water now continuously, apparently, can they not?

Mr. HURLEY. Yes, sir.

Senator HARDING. Have you done anything with the housing problem?

Mr. HURLEY. Yes. The counsel for national defense had a committee and recommended that the War Department, the Navy Department, and the Shipping Board work out some plan, and build houses for the different localities that required a great many additional men, and that were short of houses, and that as soon as that committee reported I took the matter up, and appointed a special practical man on housing. We will take Baltimore, for example. They wanted $6,000,000 to build additional houses at the Sparrows Point shipyards.

Senator HARDING. How far is Sparrows Point from Baltimore?

Mr. HURLEY. Only about 12 miles.

Senator HARDING. Is there convenient communication between those places?

Mr. HURLEY. I was just going to tell you about that, Senator. The Pennsylvania Railroad runs trains out there, and there is a street car line. This housing man found vacant houses in Baltimore. The housing question is as much a transportation matter as anything else, and 80 per cent of these men live in Baltimore that work in the Sparrows Point plant. By taking a couple of transformers that were tied up by the Government and putting them on the electric road it increased the transportation facilities to the extent of putting on 10 or 15 additional cars, and we had the Pennsylvania Railroad improve its service. After we find that the local conditions have been congested, the tendency at times is to let the Government do it, and we are applying the practical side of it and finding out all the facts, and then we will act on the housing problem, after the first practical step has been taken. We found 500 vacant houses in Baltimore.

Senator HARDING. In Baltimore?

Mr. HURLEY. Well, between Baltimore and Sparrows Point, some half way to Sparrows Point were vacant.

Senator HARDING. Available for workmen?

Mr. HURLEY. Oh, yes. We are using them now.

Senator NELSON. Mr. Hurley, will you please furnish the committee with a list of the strikes that have taken place in the shipbuilding yards?

Mr. HURLEY. I will be very glad to, Senator.

Senator NELSON. And the number of strikers in each case, and the class of work.

Mr. HURLEY. I shall be glad to do that, Senator.

The CHAIRMAN. And you are still engaged in letting contracts for wooden ships, composite ships, and steel ships.

Mr. HURLEY. No composite ships, Senator.

The CHAIRMAN. No composite ships?

Mr. HURLEY. It takes pretty near as much steel for a composite ship as for a steel ship.

The CHAIRMAN. Yes, but you get them a good deal cheaper?

Mr. HURLEY. Yes, some cheaper. They do not care to build them so much.

The CHAIRMAN. Are you now letting contracts for composite ships?

Mr. HURLEY. We have not been letting any recently. I do not know that we have given it up entirely.

The CHAIRMAN. The board still proposes to build some composite ships.

Mr. HURLEY. Probably not.

The CHAIRMAN. You are still going on with them?

Mr. HURLEY. Oh, yes.

Senator NELSON. Mr. Hurley, can you give us any information as to what Congress should do to aid you in expediting this work?

Mr. HURLEY. The housing problem is the most serious, and it is a rather trying position to place us in to determine that we should spend $15,000,000 or $20,000,000 on houses out of our shipping program. There has been some doubt about that. It is the main thing we would like to get your help on.

Senator NELSON. Is there any urgent requirement for building houses in all cases?

Mr. HURLEY. Well, in many cases there is. They have expanded; they have employed so many men and expanded, the factories are close together, and they have not any houses for their men.

Senator NELSON. In what localities is that?

Mr. HURLEY. Baltimore, Philadelphia, Bridgeport, Quincy, Chester, Wilmington, and many other places.

Senator NELSON. Do you propose to construct what might be called temporary buildings or would you build the expensive and permanent type?

Mr. HURLEY. That has not been decided on. We have not decided anything. This is the proposition we made to the Bethlehem Steel Co.; we would loan them 80 per cent on a 4 per cent basis of the total costs. They would furnish the land, and later pay us that money back, and then they would take a second mortgage on the other, but the corporation was to guarantee 80 per cent. They declined that.

The CHAIRMAN. Is there any trouble as to houses?

Mr. HURLEY. No; we have not had any outside of Newport News, and they are in a very bad way.

The CHAIRMAN. Are not the labor conditions favorable on the Gulf and South Atlantic coast, plenty of men and plenty of houses?

Mr. HURLEY. There are plenty of men there and plenty of houses.

The CHAIRMAN. Is there not an advantage in climate there over other portions of the country?

Mr. HURLEY. Yes; it is very much like the California climate. The men work a larger number of days in the month in the South.

Senator NELSON. Is it possible to get the men to work overtime? Can you get double crews to work on the shipbuilding?

Mr. HURLEY. That is our hope now, to have three crews, and that is what we are working on. We will have to do that.

Senator NELSON. If it can be done that will expedite the work a great deal.

Mr. HURLEY. That is the secret of the whole thing. Man power is what we need.

Senator NELSON. And you have that power now?

Mr. HURLEY. We are taking broad steps to secure man power now.

The CHAIRMAN. I have been told there is no trouble about getting any amount of labor in the south, and one reason for that is that there is a tendency for the men up here, particularly during the winter months, to come down to the milder climate. They are glad to go there, and there is an abundance of labor, and no trouble about housing. I would like to inquire whether your experience bears that out or not?

Mr. HURLEY. That is our experience. We have no trouble at Jacksonville and Brunswick. They generally start a yard or two yards, and they are fairly good sized, and they do not expand so rapidly that they affect the housing, but where you throw a half dozen yards in one locality it affects the housing problem materially.

Senator JONES. Mr. Hurley, right in connection with the questions of Senator Nelson and Senator Johnson: Aside from the facts with reference to the housing problem, do you think that the system provided by the legislation of Congress is the most efficient system for getting ships?

Mr. HURLEY. You mean of an organization like we have and are working under now?

Senator JONES. Yes.

Mr. HURLEY. That is the only way we can do it.

Senator JONES. So that you do not see any need of any additional legislation by Congress?

Mr. HURLEY. Well, it is a builders' proposition.

Senator JONES. That is what I want to get at—to get ships as quickly as possible. You think there is ample concentration of power and authority to bring about the best results?

Mr. HURLEY. Yes, sir; and if the head of the corporation does not build them, after the experience he has had, it is because of inefficiency.

Senator JONES. And not because of any lack of authority under the law?

Mr. HURLEY. Not now.

Senator HARDING. You think, Mr. Hurley, now that the head of the Emergency Fleet Corporation and the general manager are in accord?

(No response.)

Senator HARDING. I think that is important, in view of the testimony.

Mr. HURLEY. You say, "in power?"

Senator HARDING. You think you are in perfect accord now?

Mr. HURLEY. Oh, yes.

Senator HARDING. Let me ask you another question. The finances at the disposal of the corporation are in your hands and not subject to the dictation or whims of the Shipping Board?

Mr. HURLEY. Yes, sir.

Senator HARDING. You have the authority now to go ahead, and if you do not go ahead it is your fault?

Mr. HURLEY. Yes, sir; absolutely.

Senator HARDING. Are you having any trouble of getting materials furnished?

Mr. HURLEY. Yes.

Senator HARDING. In the steel line, for example?

Mr. HURLEY. Steel plates, you mean?

Senator HARDING. Yes?

Mr. HURLEY. We are improving every day on the steel plates, and the steel plates we ordered two or three months ago are beginning to arrive, and that is helping us.

Senator HARDING. You are planning a very large program for these vessels being provided for?

Mr. HURLEY. You mean winches, engines, and boilers?

Senator HARDING. Yes; various things.

Mr. HURLEY. You see the Navy uses a very large horsepower on destroyers. That affects our program somewhat, but the General Electric and Allis Chalmers and the Westinghouse and all these large concerns building turbines are expanding and are supplying the needs of the Navy and the Fleet Corporation. We are working at a reciprocating engine for equipping additional ships, so we will not get crowded on the turbines. We are watching that pretty closely, Senator.

The CHAIRMAN. You will be able to get machinery, engines, and all that sort of things to fit out the ships as fast as built?

Mr. HURLEY. The turbines are the only thing we are really crowded on. The other engines and boilers there is no trouble about. They are starting a big plant at Erie, Pa.—that is, the General Eelectric—for the purpose of helping the Navy out. If it were not for the needs of the Navy in the matter of turbines, we would have a free hand, but they are being taxed to their capacity. We happen to be using the same type of an engine they are using, but we are following them up and watching it very closely, and the question of longer hours in the engine works is just as important as in the shipyards.

The CHAIRMAN. Do you happen to know now, Mr. Hurley, about the cost of steel ships, say, in June, 1914, in this country and in England?

Mr. HURLEY. I am guessing, but I would say about—before the war?

The CHAIRMAN. Yes; in 1914?

Mr. HURLEY. $50 in England or $40 in England and $60 here.

The CHAIRMAN. $40 in England and $60 here?

Mr. HURLEY. Yes.

The CHAIRMAN. Do you think the conditions here are such as to warrant this increase to $166 a ton?

Mr. HURLEY. If we did not have the Emergency Fleet Corporation in charge, there would not be a shipbuilding yard in the country that could not sell its output at $340 a ton. They sold a great deal at $300 before we were organized.

The CHAIRMAN. Taking into consideration the element of wages and the element of materials, those two things which principally enter into the construction of a ship, has the price of wages gone up so in this country and the cost of materials increased so as to justify that enormous increase of over $100 a ton on steel ships?

Mr. HURLEY. Of course, Senator, they base the cost per ship on freight rates, and the freight rate is any rate that you want to make; and the demand for ships, on the part of men who want to engage in the transportation business forces the prices up.

Senator NELSON. The enormous freight rates?

Mr. HURLEY. Yes.

Senator NELSON. That has done more than anything else to cause that condition.

Mr. HURLEY. Freight, labor, and materials.

The CHAIRMAN. What I was getting at was not so much the question of the value of the ships after produced, but the elements that enter into the cost of production and the thought in my mind is whether or not the Government itself, without making any contracts, could not have gone in and built the yards and built the ships at less than it is now costing?

Mr. HURLEY. The Navy tried that. The Navy had to go into the private yards and get their capacity, and they had a number of shipyards they could have built under, but it was impossible. You could not build them: you had to take advantage of the initiative on the part of the individual throughout the country, and the different sections of the country to produce the maximum amount of tonnage that is now being produced.

Senator NELSON. And I believe they did not get them built cheaper in the Government yards than in private yards, did they?

Mr. HURLEY. I do not know about the comparison with respect to the Navy.

Senator HARDING. You are touching on a long-standing controversy in Congress.

The CHAIRMAN. Of course, the Government might have controlled that factor to some extent where an individual could not.

Senator HARDING. Mr. Hurley, apropos of this little serious discussion, how much has the anxiety over money making had to do with delaying shipbuilding progress in private yards.

Mr. HURLEY. We have found the shipbuilders, the large majority of them, very reasonable and very fair.

Senator HARDING. Is it or is it not a fact that a good deal of work has been delayed in its inauguration due to the one fact that there was a controversy over the profits in the business between the Emergency Fleet Corporation and the private builders?

Mr. HURLEY. That we tried to keep their profits down, and that delayed the matter?

Senator HARDING. That is one angle of it, if you please?

Mr. HURLEY. On these big contracts and on the individual contracts, by the time the excess profits were taken out of their earnings, they would probably have 1 or 2 per cent, or 3 per cent. I think the question of profits is pretty well taken care of. No matter what you may figure they should have, if they make any large profit it is gone. We have not lost much time on that. It has been over the starting of the new yards and satisfying ourselves that these men were the right sort, that they had the proper punch, and that they would go clear through.

Senator HARDING. You did not quite get me. I am not trying to raise the controversy about profits.

Mr. HURLEY. Maybe I did not.

Senator HARDING. I was trying to ascertain whether or or not it is a fact that the private builders at the time the war broke was very busy on contracts that were highly profitable to him; and then the government stepped in and they would not allow him to build for the private customer, and there immediately arose, as I get it, a controversy between the contractor and the Emergency Fleet Corporation over the policy of a profit, and that, notwithstanding a reasonably patriotic inclination, there was a friction between the ship builders and the Emergency Fleet Corporation over that question, which had a tendency to somewhat stall operations.

Mr. HURLEY. With respect to commandeering ships?

Senator HARDING. I am not speaking of commandeering ships; because you refused to allow them to build for me, for example: you stopped all this private enterprise.

Mr. HURLEY. That did cause some dissension, and it was a very hard matter to settle, and it delayed matters.

Senator HARDING. Has that been essentially eliminated all along the line?

Mr. HURLEY. Yes, generally speaking. There are a few cases still that we are going to adjust to the satisfaction of the ship builders. We are trying to drive a good, fair bargain, but we are not going to

be unreasonable, and we find men more reasonable today than they were at the start. They were very much opposed to our taking over ships at the start, because they had large profits in many cases. A private contractor might be paying $300 a ton, or $375.

Senator HARDING. One must assume that there has been a change of policy in the process, else the private yard, like we speak of at Alexandria and other places, starting at this late day, but not content to venture on this expenditure, and I have been trying to learn if there has been a change of policy in that regard?

Mr. HURLEY. A change of policy in that regard on the part of the Fleet Corporation. Admiral Capps, just before he left, helped to straighten out a number of controversies caused by ships that were being commandeered in the yards. I do not think we have over four or five cases left. I am guessing a little bit at the number. So, with that out of the way, there can not be any more feeling that the Fleet Corporation is not treating them fairly. It naturally would cause some feeling to commandeer a man's ships and stop him from progressing along the lines he had planned, and he resented the Government's coming in and taking over his ships.

Senator SHERMAN. Admiral Capps had the power to originate contracts and then initial them and pass them on to you?

Mr. HURLEY. Yes.

Senator SHERMAN. Do you recall any instance in which you delayed the contract by your lack of approval—do you recall a single instance now?

Mr. HURLEY. None.

The CHAIRMAN. If there are no other questions, we will excuse Mr. Hurley.

Mr. HURLEY. Thank you very much.

Senator JOHNSON. Mr. Hurley, before I depart, I have just received a note from Senator McCumber with this query annexed. He has taken a very deep interest in this subject. May I submit them to you to look over at your convenience? [Handing papers to Mr. Hurley.]

Mr. HURLEY. I shall be very glad to.

Senator JOHNSON. There are notes and his comments.

The CHAIRMAN. The committee will now hear Mr. Donald.

STATEMENT OF HON. JOHN A. DONALD, COMMISSIONER OF THE UNITED STATES SHIPPING BOARD.

The CHAIRMAN. Mr. Donald, you are one of the commissioners of the Shipping Board.

Mr. DONALD. Yes, sir.

The CHAIRMAN. You went in when the board was first appointed?

Mr. DONALD. Yes, sir.

The CHAIRMAN. And you took office at what time?

Mr. DONALD. Took office in the last days of January.

The CHAIRMAN. Of this year?

Mr. DONALD. Yes, sir.

The CHAIRMAN. And had you any experience in shipping, either in construction or operation, or both?

Mr. DONALD. I had a good deal of experience in connection with the operation of ships principally. In a general way I knew a good deal about the construction of ships from having followed the construction of my own ships that I was managing.

The CHAIRMAN. What experience did you have in that line?

Mr. DONALD. In managing the ships?

The CHAIRMAN. Yes.

Mr. DONALD. Well, we had 8 ships. I had about 22 ships pass through my hands from the beginning, in respect of their management, and I think my company, at the time I came over here, had 8 ships under its control.

The CHAIRMAN. You were in that business immediately prior to going on the board?

Mr. DONALD. Yes.

The CHAIRMAN. And your company was then operating eight ships?

Mr. DONALD. Yes.

The CHAIRMAN. What was your position with your company?

Mr. DONALD. I am president of the company.

The CHAIRMAN. Where did those ships operate, Mr. Donald?

Mr. DONALD. Between the West Indies, principally, and New York, carrying bananas and fruit, and the Canadian trade on the lakes and on the rivers, never going across to the other side. They were vessels of moderate size. Some were about 2,200 tons deadweight, which were the largest we had in that company. But in another company I was connected with we had larger ships.

The CHAIRMAN. Does that other company operate their ships across the Atlantic?

Mr. DONALD. No.

The CHAIRMAN. The board as organized by the election of Mr. Denman as chairman, I believe.

Mr. DONALD. Yes; that is true. That was in the beginning of February, so far as I recollect.

The CHAIRMAN. What was done, Mr. Donald, then, looking to the carrying out of the purposes of the act? You might give the committee the various steps that were taken.

Mr. DONALD. Well, we got together; five commissioners. I think Mr. Stevens joined us later. I think on the 6th of February, at the recommendation of the board, the President issued an Executive order that no vessels should be transferred from the American flag to any foreign flag, and then after that we were engaged with questions which were coming before Congress, helping legislation, when the war broke out on the 6th of April.

The CHAIRMAN. Had you been looking to preparing for the building of ships?

Mr. DONALD. For the building of ships?

The CHAIRMAN. Yes.

Mr. DONALD. We were entertaining offers from owners who came here to make us proposals for building ships, but only to the extent of the facilities or the money that we had at our disposal, which, of course, as you know, was $50,000,000.

Senator NELSON. When was the Emergency Fleet Corporation created or organized?

Mr. DONALD. So far as I know, about the 1st of April.

Senator NELSON. What contracts, if any, for shipbuilding were let by that corporation during the time that Gen. Goethals and Mr. Denman were in office?

Mr. DONALD. I think, Senator, that that has been clearly stated by Mr. Hurley when he was on the stand here, to the extent of one in April, and the following——

Senator NELSON. How?

Mr. DONALD. You have the number following in May, June, and July. You have the record here.

The CHAIRMAN. Is there any reason why the Emergency Fleet Corporation was not organized before that time?

Mr. DONALD. I can not tell you any particular reason why that should be so, but I suppose that the question of the war having happened and hurried up matters, made it more important that ships should be built right away. I think it accelerated matters so far as shipbuilding is concerned.

The CHAIRMAN. The question was, why was not the Emergency Fleet Corporation organized before it actually was organized and began business?

Mr. DONALD. I think there was some trouble in finding a general manager at the time to take charge of the whole program; some little delay.

The CHAIRMAN. It was organized on the 16th of April, 1917.

Mr. DONALD. Yes.

Senator NELSON. Was there a conflict between the manager of the corporation and the chairman of the board as to the contracts and the kind of vessels?

Mr. DONALD. I can not say, Senator, that I am very well posted about that, because these personal matters were between Mr. Denman and the General.

Senator NELSON. I did not ask for the nature of the conflict, but was there any?

Mr. DONALD. Yes; there was.

Senator NELSON. Did that have a tendency to delay things?

Mr. DONALD. In coming——

Senator NELSON. To delay ships built or contracts?

Mr. DONALD. I do not think so, because Gen. Goethals went ahead on his own account and took matters into his own hands under the ample powers which were given him as general manager of the corporation.

The CHAIRMAN. Was there any effort made to acquire ships prior to that time?

Mr. DONALD. Yes; there were several efforts, several meetings of the board. Of course, before the Emergency Fleet Corporation, there were several meetings at which these matters were discussed, obtaining the help of people to build ships, but then we immediately got into the larger program.

Senator NELSON. Mr. Donald, come out and tell the committee plainly whether or not a controversy in respect to the matter of building wooden ships as against steel ships?

Mr. DONALD. I think that Mr. Denman was very much in favor of building as many wooden ships as possible. I think there is not the

slightest doubt about that. I think when Gen. Goethals came and measured up conditions in the board, he arrived at the conclusion that the steel ship, if it could be produced, was the proper type of ship to go in for, and I thoroughly agreed with him.

Senator NELSON. Did that difference of opinion that you have described delay matters any in letting contracts?

Mr. DONALD. I think it delayed matters so far as steel ships were concerned, but I do not think it did so far as wooden ships were concerned.

Senator NELSON. It caused delay to the steel ships, but not as to wooden ships?

Mr. DONALD. Yes, sir.

The CHAIRMAN. What particular work has engrossed your attention, Mr. Donald, if there has been any assignment of the work?

Mr. DONALD. Principally my efforts have been with the Shipping Board and the Fleet Corporation in its minor activities. I have been connected a great deal with the German ships, fitting them out. At the time that the war broke out I was sent to New York and told to get those vessels repaired with the quickest possible speed and get them ready for sea; they were very much wanted by the allies. It was the intention of the Administration to put those ships in the service of the allies. I went to New York, had the ships repaired, and I think they are all running now, earning money for the owners, helping the allies, or helping ourselves.

Do you want me to go into the question of these other activities of the Shipping Board?

The CHAIRMAN. You might mention the other activities of the Shipping Board. I do not know that it is necessary to go into details.

Senator JOHNSON. Before passing to that, may I just inquire a bit further in relation to the matter just brought out by the Senator from Minnesota? You said Mr. Denman favored the construction of wooden ships and that Gen. Goethals favored the construction of steel ships and in the latter view you concurred. Was it Mr. Denman's idea to construct both wooden and steel ships?

Mr. DONALD. That is true.

Senator JOHNSON. He wanted to construct both wooden and steel ships.

Mr. DONALD. Yes, sir.

Senator JOHNSON. Is not that the policy now pursued by the Shipping Board?

Mr. DONALD. Yes, sir. Of those German ships I think we had about 85 or 90 all together, scattered over the country—at New York, Boston, the southern ports, San Francisco, Seattle, and Puget Sound; and then they were also in Honolulu, Samoa, and Manila. These vessels were in a dangerous condition. Mr. Chairman, I do not know whether I should tell you about that, because perhaps you know that.

Mr. CHAIRMAN. I think you might perhaps give us in a general way the extent of the damage.

Mr. DONALD. We had a board of survey in New York who estimated the damage and submitted an estimate, which was brought here and an appropriation asked for out of the National Security and Defense fund. The contracts were made on the basis of time, material used, machine tools that were used, and the labor, because it was almost impossible to estimate correctly on any of these jobs at

that time. I have figures before me giving a recapitulation of the amount that has been spent, which come to $4,561,000.

Senator NELSON. In repairing those ships?

Mr. DONALD. Yes, sir.

The CHAIRMAN. What was the nature of the damage to them, Mr. Donald?

Mr. DONALD. The nature of the damage principally was to the casting at the side of the high-pressure valve chest, which is attached to the cylinder, and they broke holes in that all around and then took a sledge hammer and smashed this off. Of course, it was a very important part of the connection from one cylinder to the other, and our committee got castings of bronze metal and fixed it. I think the intention of the Germans was that possibly it would require new castings for cylinders, which would have been very difficult thing to have got, but, as a matter of fact, we repaired it with our own castings, and by putting in a patch there that has stood, so far as I know, up to the present time.

The CHAIRMAN. Are you speaking of one ship or all?

Mr. DONALD. They were all damaged in almost the same manner.

Senator NELSON. You repaired them by the electric method?

Mr. DONALD. We helped with the electric welding.

Senator NELSON. You got expert railroad men to help you in the work, did you not?

Mr. DONALD. There was a Mr. Wilson in New York who did help us there. Of course, electric welding is a well-known repair nowadays to ships.

Then we started, after that, a movement to get officers for those ships, knowing that this matter was coming; and our recruiting officer, Mr. Howard, of Boston, has established schools all over the country. I had a good deal to do with that at that time, and we are turning out officers for those ships, because when this tremendous number of ships, 900 or 1,000, are coming forward, it must be necessary to provide men and officers for them. That matter was started in April, and I think that Mr. Howard has produced something like 3,000 men in his schools up to the present time.

Senator NELSON. Has there been much difficulty in getting men to man the ships?

Mr. DONALD. No; there has not. We are not at the present time having any difficulty. There will be difficulty in getting men in the future, and we are taking steps to get that done also; I mean, for sailors, firemen, cooks, stewards, water tenders, and coal passers.

Senator NELSON. Have we had any instances where ships originally built for the Cunard Co. were commandeered, and the Cunard people had crews on hand to man the ships, and the trip through the canal was delayed by our inability to furnish crews?

Mr. DONALD. I think, Senator, that come up in this way: The Cunard Co. expected to get the delivery of these ships and had brought their crews over from Liverpool and put them on board the vessels. I know there was some difficulty, but eventually we took them and manned them.

Senator NELSON. As I understand you, Mr. Donald, our shipping has not been hampered or delayed in its operation for the lack of men.

Mr. DONALD. No, sir; it has not; sir.

Senator NELSON. Has it been delayed or hampered by the lack of bunker coal?

Mr. DONALD. Yes, and bunker coal at the present time is very, very difficult to get in New York. Mr. Carey, our director of operations, tells me he is having great amount of trouble getting coal, and ships are being delayed for coal both at Norfolk and New York.

The CHAIRMAN. Is that situation being removed at all, or is it continuing?

Mr. DONALD. I can not tell you about that; it has not come up before the board, but Mr. Carey, if he appears before you, Senator, can tell you.

The CHAIRMAN. Are you still going on with these schools?

Mr. DONALD. Yes; we are still going on with them.

The CHAIRMAN. Are they intended to equip officers, or to train seamen?

Mr. DONALD. To train seamen as well. The board has made an appropriation to Mr. Howard, of an amount for training officers and seamen.

Senator NELSON. Engineers?

Mr. DONALD. No; the seamen and the firemen; and he has hired a ship in Boston to lodge those men on board, and his idea is to give them about a month and a half training and produce, he thinks, about 2,000 men in a month.

Senator NELSON. Sailors?

Mr. DONALD. Yes.

Senator HARDING. Has there been any consideration of the proposition to man our merchant ships with naval crews or naval commanders?

Mr. DONALD. There has been a proposition, sir, considered at several meetings between the Navy officials and ourselves, and we have reached the conclusion that we want the Navy to run all the ships to the other side that are carrying our troops, and that all the ships carrying munitions and supplies for the armies can also be manned by Naval Reserve crews; but that all other vessels going to the war zone, such as commercial ships, which we have commandeered, and the German ships, which we now own, shall be manned with men already in the service.

Senator HARDING. Have there been losses of merchantmen through the failure of their commanders to conform to the directions of the American Shipping Board or the British Admiralty?

Mr. DONALD. Will you please repeat the question again?

Senator HARDING. Have there been losses of merchant vessels through the failure of their masters to conform to the orders of the shipping authorities in London or the United States?

Mr. DONALD. I have not heard of any. I am the chairman of the ship protecting committee, and I think if there are any difficulties of that kind it would have come to my notice.

Senator HARDING. You know of none?

Mr. DONALD. I know of none.

Senator HARDING. Do you know anything, Mr. Donald, of the delay in the issuing of the commandeering order to cease building in American yards for foreign owners?

Mr. DONALD. I can not tell you regarding that. Matters at that time were difficult between Mr. Denman and Gen. Goethals, because,

as I understand it, that order came out about the 11th of July, and I can not tell you much about that, except that these difficulties were there, and I think that that was the cause of it. I am not very clear on that.

Senator HARDING. Do you know whether we lost any available tonnage for American service by that delay?

Mr. DONALD. Well, I did hear of some being lost, but as it was not in my immediate department, and I was busy otherwise, I did not take a great deal of interest in it, and I am afraid I can not give you very much information as to the exact number.

Senator HARDING. Are we hampering our marine service, coastwise and over the Lakes, by the withdrawal of vessels in that service for the trans-Atlantic trade?

Mr. DONALD. There is not the slightest doubt that our over-seas trade will be very much hampered by reason of the vessels lost in the war zone.

Senator HARDING. The next question, if it is not too embarrassing, was there a controversy in the Shipping Board over organization from the very beginning?

Mr. DONALD. I do not quite understand, Senator, what you mean by that. Over getting together?

Senator HARDING. Let me see. May be I can refresh your mind. Was not Mr. Baker, of Baltimore, originally on the board?

Mr. DONALD. Oh, yes; of course. Mr. Baker was expected to have gone on the board, but he resigned practically before appointed, I think.

Senator HARDING. Was that due to a controversy over the organization?

Mr. DONALD. Over the organization?

Senator HARDING. Yes.

Mr. DONALD. I think it had something to do with that, yes.

Senator HARDING. You know none of the details of that?

Mr. DONALD. Well, I think that—do you want me to state——

Senator HARDING. We are trying to get now, Mr. Donald, what has been the matter with the Shipping Board. If it is not pertinent, I do not want to embarrass somebody personally about it.

Mr. DONALD. Well, I think Mr. Baker expected to have been elected president——

Senator NELSON. Chairman?

Mr. DONALD. Chairman of the board, yes. I think he wanted to be chairman of the board.

Senator HARDING. Was there any interference from the outside in the organization of the board?

Mr. DONALD. I do not think so; I never heard of any.

Senator JONES. Were any members of the board opposed to Mr. Baker being chairman?

Mr. DONALD. I do not think so.

Senator JONES. You do not think so?

Mr. DONALD. No. I would say possibly Mr. Brent or Mr. Denman wanted to be chairman.

Senator HARDING. Mr. Donald, other than the chairman of the Shipping Board, do any members of the board have to do with the Emergency Fleet Corporation, with its policy or its activities?

Mr. DONALD. No, sir. No, I think I can answer that to say that the members of the Shipping Board are all trustees of the Emergency Fleet, and I think that up to the present the general manager has been the only other trustee. Capt. Bertholf, of the Coast Guard Service, served with us, and Mr. Piez has taken his place. We are in thorough accord in the Emergency Fleet Corporation, and we are working well together, nor is there any friction of any kind at all in the Emergency Fleet Corporation at the present time.

Senator HARDING. Was it your understanding that Admiral Capps retired solely on account of failing health?

Mr. DONALD. I understand that is so. I think that Admiral Capps possibly thought that his duties should be of a more important character and that he should have more independence in the direction of the affairs of the corporation as was expressed in the by-laws, but the trustees changed the by-laws to make it in accordance with the by-laws of any ordinary corporation, and these corporation rules have been adopted by us.

Senator NELSON. That is, after he resigned you made those changes, or was it before?

Mr. DONALD. No, it was 15 days before.

Senator NELSON. Mr. Donald, do you not know, as a mater of fact, that Admiral Capps resigned not altogether on account of poor health, but because he was somewhat handicapped by those above him?

Mr. DONALD. Well, I have just stated that I think one reason was that he wanted more independence of action on his own account. I have just stated that.

Senator NELSON. He felt he was hampered in some way by other authorities connected with the fleet corporation or with the board, was not that it?

Mr. DONALD. Well, I think he felt that possibly he would like to have more independence of action rather than be under the immediate direction of the trustees.

Senator NELSON. In other words, that his activities as he conceived them, were hampered by the trustees? Is not that it?

Mr. DONALD. I can not tell you that.

Senator NELSON. You are noncommittal on that point. Mr. Donald, do you think that this ship-building program of the government that we intended to inaugurate by that law through that board, of which you are a member, has been expedited as rapidly as it ought to have been from first to last?

Mr. DONALD. I do, with the exception of the interregnum between Mr. Hurley coming in and Mr. Denman. I do consider that there has been great expedition shown, and there is particularly good management shown at the present time.

Senator NELSON. Since Mr. Hurley came in?

Mr. DONALD. Since Mr. Hurley came in.

Senator NELSON. How was it before that time? Did things move as expeditiously as they ought to have moved before that time?

Mr. DONALD. I think that they did, because you made your appropriation, I believe, on the 11th of July, and there was very little time between that and the time Mr. Hurley came in to take charge. There was a delay during that time because the money was not appropriated and placed at our disposal.

Senator NELSON. Of course, you could have looked the ground over and opened negotiations?

Mr. DONALD. I think Gen. Goethals found the yards of the country pretty well filled up everywhere. He has been busy in trying to get organizations of shipbuilders together. That was the principal thing, since it began, just to use your expression.

Senator NELSON. Were you embarrassed by any action of any shipbuilders of the country?

Mr. DONALD. I do not think so; I never saw any.

The CHAIRMAN. Could you not have decided on designs so you would not have had to make changes afterwards?

Mr. DONALD. Mr. Ferris was brought into the Emergency Fleet Corporation, so far as I know, somewhere in the month of March—let us see, it must have been April or May—and he immediately got up a design of a ship, which I understand has been, to some extent, altered.

Senator NELSON. Was that a wooden ship?

Mr. DONALD. A wooden ship; but at the same time, I think, Mr. Ferris was also designing steel ships. We had a committee, I think, an advisory committee of shipbuilders, including Mr. Homer L. Ferguson, of Newport News, and Mr. P. A. S. Franklin, and one or two other gentlemen, on an advisory committee to devise the best type of steel ship when the money was forthcoming to build them.

The CHAIRMAN. Were they at work on that before the appropriation of the money?

Mr. DONALD. Yes, sir; they were.

The CHAIRMAN. Did they reach the same conclusion?

Mr. DONALD. They did reach it. I understand they took the matter up with Gen. Goethals and I think he adopted, to some extent, their recommendations.

The CHAIRMAN. And that became the Ferris design?

Mr. DONALD. Well, that is the Ferris design—I am talking about steel ships now. This is one for steel ships that this advisory committee acted on.

The CHAIRMAN. What they call "fabricated" ships?

Mr. DONALD. Yes.

Senator NELSON. Is it not a fact, Mr. Donald, that your board and your corporation has not succeeded in increasing our merchant marine except by these commandeered ships that you took from the English and the Norwegians? Is not that a fact?

Mr. DONALD. Well, Senator, it takes time to build ships——

Senator NELSON. I understand that, but I think my question calls for a little different answer than that.

Mr. DONALD. Would you please repeat your question?

Senator NELSON. I say, as a matter of fact, you have not succeeded in—your board and your corporation have not succeeded in increasing our merchant shipping during your administration, except by these commandeered ships that you have taken over from English and Norwegian shipowners? Is not that a fact?

Mr. DONALD. We are getting delivery on some ships. The Emergency Fleet Corporation has one ship particularly in view in Seattle that will be ready to sail the 29th of December. She has her cargo. She has been manned. She has been built. Her contract was signed

in June. Two of the ships when we commandeered them had their frames up on the 3rd of August, when our commandeer order went out, and these two vessels, built on the Pacific coast, have sailed from Pacific ports to Atlantic ports, and their frames were only up on the 3rd of August. I think that is pretty quick work.

Senator NELSON. But they were commandeered ships?

Mr. DONALD. Commandeered ships, yes.

Senator NELSON. Partially built before you took them?

Mr. DONALD. Yes.

Senator NELSON. As I understand Mr. Hurley, as a matter of fact you have only completed one ship outside of the commandeered ships?

Mr. DONALD. I think that is correct.

Senator NELSON. That is correct, isn't it?

Mr. DONALD. I think so, yes.

Senator JOHNSON. Mr. Donald, you were asked whether or not there had been a contest originally over the selection of a chairman of the board. Did that contest interfere at all with your organization of the board and then with the performance of your work thereafter?

Mr. DONALD. None whatever, sir.

Senator JOHNSON. And from the time of the organization of your board up to the time of Mr. Denman's resignation were you constantly, continuously at work upon your program?

Mr. DONALD. Yes, sir; we were.

Senator JOHNSON. And was it diligently pursued during that period?

Mr. DONALD. I think it was, yes.

Senator JOHNSON. And with such despatch as was possible under the circumstances?

Mr. DONALD. Yes.

Senator JOHNSON. I understood you subsequently to say as well that there had been no friction whatever in the board since Mr. Hurley had come upon it?

Mr. DONALD. I think that is right.

Senator JOHNSON. Is that correct?

Mr. DONALD. I think so.

Senator JOHNSON. Has there been any friction of any sort since the advent of Mr. Hurley that has in any degree interfered with the carrying on of your program or the execution of your designs?

Mr. DONALD. I do not know of any, sir.

Senator JOHNSON. Before Mr. Hurley came matters moved expeditiously, did they not?

Mr. DONALD. I think so, up to the point we got appropriations from your committee.

Senator JOHNSON. Yes, sir. And there was a very brief interregnum between the time of the resignation of Mr. Denman and the advent of Mr. Hurley, to which you have adverted?

Mr. DONALD. I think only one day. Mr. Hurley was elected the same day Mr. Denman resigned and Gen. Goethals resigned. And Admiral Capps was put in the same day.

Senator JOHNSON. Now, specifically, I ask you again, has there been any friction upon the board at any time from the time of your

organization that has interfered with the orderly process of the work or the execution of your shipping program?

Mr. DONALD. I do not know of any, sir.

The CHAIRMAN. Do you know of any way, Mr. Donald, that delays might be avoided in the way of letting contracts, going on with the work, and that sort of thing?

Mr. DONALD. Well, I can not say I do. It is the duty of our employees in the office to give due expedition to any man who has a contract. I have not heard of any. There have been one or two complaints, but I have referred them to that department downstairs, the Emergency Fleet Corporation. But there has never been anything very serious.

The CHAIRMAN. So far as you can say, the machinery is not cumbersome?

Mr. DONALD. I do not believe it is.

Senator HARDING. Has there at any time, Mr. Donald, been any hesitancy or uncertainty on the part of the Emergency Fleet Corporation as to policy?

Mr. DONALD. No; I do not think there has been any hesitancy. We have made up our minds—the whole idea at our meetings has been the speeding up of ships. Everybody has had that idea in their heads: "How can it best be accomplished?" And the chairman had Mr. Piez brought in for the purpose of expediting that matter. There was a committee appointed by the chairman to look into that matter, and they came back and made a report to us that there were conditions in the yards that were keeping things back, and the idea was to get a business manager like Mr. Piez to shove things forward, and Mr. Piez has been doing that.

The CHAIRMAN. Is there competition in the bidding for this work, or do you fix prices?

Mr. DONALD. That matter is dealt with entirely by the Emergency Fleet Corporation. I can not say that I am particularly posted as to the method, but Admiral Bowles can tell you that—and the other members. Admiral Bowles is here.

The CHAIRMAN. What I had in mind is this: It seems that these steel ships, for instance, are costing $166 a ton. I presume that is an average, and it is about the same; each bidder is doing the work at about that figure. How does it happen that they are all bidding practically the same thing for the same work?

Mr. DONALD. Well, I think the prices of material are so regulated, and overhead costs, etc., and labor is pretty much the same thing that you get nearly the same result in price. I have observed, too—I have been astonished in reading over the contract lists to see the regularity of prices, ranging from $140 to $160.

The CHAIRMAN. Do you know whether the work at Bristol by the Merchants Shipping Co. is to be stopped?

Mr. DONALD. Do I know whether it is to be stopped?

The CHAIRMAN. Yes.

Mr. DONALD. I have not heard so, sir.

The CHAIRMAN. Some one writes me a letter asking to inquire why it is that the work at Bristol is to be stopped and abandoned Saturday next.

Mr. DONALD. If Mr. Stevens were here, he might give you a lot of information about the labor conditions in all those yards, because he

has been visiting them with great regularity. He has been using great efforts to harmonize matters.

The CHAIRMAN. You do not know of this stopping of the work there?

Mr. DONALD. No; I do not, sir.

Senator NELSON. Mr. Donald, I have heard several good men state that during Gen. Goethal's administration—shortly before he went out of office—there were four ships completed in our yards ready to go to sea, for foreigners; I think two for the Japanese—I am not certain about that—and two for the British; and that Gen. Goethals recommended that those be commandeered by our Government, and no action was taken. They were allowed to go to sea. A great many good men, even Senators, and they are supposed to be good, have made that statement. Do you know anything about it?

Mr. DONALD. Do you mean, Senator, between the time——

Senator NELSON. During the last part of Gen. Goethal's administration.

Mr. DONALD. Yes; that is between the time when we got the power from you and the time we actually gave the order?

Senator NELSON. Yes.

Mr. DONALD. I will be very glad to look it up, sir, but I don't recall.

Senator NELSON. I would be very glad to have you look it up.

Mr. DONALD. I will.

Senator NELSON. I have heard there were four or five ships. In fact, it was not any longer ago than two or three days that that statement was made right in this room.

Mr. DONALD. I know that there were negotiations between the British Government and ourselves as to whether these ships—some vessels were to be held by them or held by us—and it may have been during that period of uncertainty.

Senator NELSON. I have heard that four good ships left our yards, four large ships that we ought to have commandeered.

Senator JONES. Mr. Donald, do you agree with Mr. Hurley that the law is ample now?

Mr. DONALD. Yes, I do. I think we have all the powers we want.

Senator JONES. So that if there is any unnecessary delay it rests within the board or the corporation?

Mr. DONALD. I think so.

Senator JONES. Now, I want to ask you this. We have gone into the matter of Admiral Capps getting out of the office of manager. Why was it that Admiral Harris stayed in so short a time?

Mr. DONALD. I only met Admiral Harris once, and I would prefer that you take the matter up with Mr. Hurley, because he saw him all the time.

Senator JONES. Well, do you know why? Was it because he thought he did not have ample authority or that he was handicapped and hampered?

Mr. DONALD. It was reported to me that he did some things which we thought the trustees ought to have knowledge of before he did them, and we thought it was for the good of the service—we thought it was for the good of the service.

Senator JONES. In other words, he acted in a way that was not satisfactory to the trustees and the board?

Mr. DONALD. That is right.

Senator JONES. Did you think he exceeded his authority or acted unwisely?

Mr. DONALD. We thought he exceeded his authority and, to some extent at that time, acted unwisely.

Senator JONES. In other words, he was not unhampered then? That is, he did not have the authority he thought he had?

Mr. DONALD. That is the idea.

Senator JONES. Now, you think you have the system so that the manager has full authority?

Mr. DONALD. Has full authority. We have delegated to the chairman the authority, and the chairman again has delegated the authority to the vice president and general manager. I am one of the vice presidents myself, but Mr. Piez is looking after this matter here.

Senator JONES. So that the full authority, instead of being centered in the manager, is centered in the President?

Mr. DONALD. Centered—yes, exactly.

Senator JONES. And you do not expect his action to be interfered with by the board whether he acts wisely——

Mr. DONALD. I do not know. We expect the president to submit to us, to the trustees of the board, matters of interest, so that we can pass on the matter, just as any other ordinary board of directors would.

Senator JONES. Does the president have to submit contemplated action to you for your approval?

Mr. DONALD. We expect him to.

Senator JONES. I did not understand that Mr. Hurley took that position a while ago.

The CHAIRMAN. He does actually do that?

Mr. DONALD. He does actually do that, yes; he actually consults with us.

Senator JONES. I know, but if he thinks certain action ought to be taken, wouldn't he take it without conferring with you?

Senator SHIELDS (interposing). What are the by-laws on that subject?

Mr. DONALD. The by-law was that the business of the corporation is in the hands of the trustees. We are like any ordinary corporation. We elect a president among ourselves, and we elected Mr. Hurley. Mr. Hurley is executive for the trustees, like any other trustees. That is my idea.

Senator SHIELDS. What powers has Mr. Hurley under the by-laws?

Mr. DONALD. He has the powers to engage any person that he sees fit to help the affairs of the company; he can engage a general manager or engage any help that is required; and he can sign contracts, and he can dismiss anybody if he so desires—outside of the trustees, I suppose.

Senator NELSON. Were not men like Capps and Harris when they were in subject to his orders? Couldn't he veto anything they set out to do?

Mr. DONALD. Excuse me, Senator; I did not quite understand that question.

Senator NELSON. Take the case of Capps and Harris both. Couldn't Mr. Hurley as chairman of the board or as president of the corporation veto or overrule any action they took?

Mr. DONALD. No; not so long as the by-laws were in the condition they were in before, before the change.

Senator NELSON. But he can now, as you have amended them?

Mr. DONALD. Yes.

Senator NELSON. So he has the absolute power?

Mr. DONALD. Yes.

Senator NELSON. The man then that you put in—what is his name?

Mr. DONALD. Mr. Piez. He is here.

Senator NELSON. He is simply, when you boil it down, a creature—I shouldn't use that expression—simply the agent of the president of the board and the president of the corporation?

Mr. DONALD. Yes.

Senator NELSON. That is, the power is not in him but in the president of the corporation?

Mr. DONALD. He delegates his powers, Senator; he delegates his powers.

Senator NELSON. But that delegation he can at any time revoke, can he not?

Mr. DONALD. He can; yes.

Senator NELSON. It is all in his conscience and in his mind?

Senator HARDING. Now, Senator, I think we are getting down to the point of conflict here. In the earlier by-laws of the corporation the general manager was an authority within himself?

Mr. DONALD. Yes, sir.

Senator HARDING. And Gen. Goethals was acting under that authority?

Mr. DONALD. Yes, sir.

Senator HARDING. Was it the impression of the Shipping Board that he came there with explicit orders to do certain things?

Mr. DONALD. I can not tell you about that, Senator.

Senator HARDING. But because of the exceeding authority given to the general manager, conflicts arose?

Mr. DONALD. I wouldn't say that. There might be something of a temperamental difference which might interfere just as much.

Senator HARDING. I am inclined to agree with the wisdom of the board. I think there has been too much authority. Somebody ought to have authority and be held responsible, and I rather like your improved arrangement myself. But I would like to know more about the inside of the previous conflicts.

The CHAIRMAN. I think if the committee wants to go into that question of Admiral Harris, Mr. Hurley perhaps is the best man to deal with it, because he had to do with it directly, and perhaps that letter from Mr. Hurley to Admiral Harris explains the whole difference.

Senator NELSON. We can get information on this point while examining the men that are directly interested—Gen. Goethals and Admiral Capps and Admiral Harris. They ought to know.

Senator HARDING. I venture that Mr. Hurley would know something about that if you wanted to go into it.

One other question I wanted to ask, Mr. Donald, which takes us into quite another line. What is being done to provide for the

coastwise and lake commerce that is being more or less impaired by the withdrawal of ships? To be more specific, you are taking a number of ships out of the lake trade which are very essential to that trade. Some of them are cut in two, are they not, and then go through the canal?

Mr. DONALD. Yes, sir. I think there have been 16 ships taken out of the Lakes which have been over the canal size. They have been about 320 long as a rule; you know, they have got to be cut. Then in addition to that, we have got five more of canal size which we have taken. The idea is to lease tonnage which is in the New England trade carrying coal, large ocean-going ships of splendid construction, fit for going across. We want that tonnage, and want to take those lake vessels, which are being reconstructed now in salt water, and gradually get into the New England coal trade, which, of course, is absolutely necessary to keep our munition trade and all our other trade going in connection with the war.

Senator HARDING. Is there any private construction permitted or encouraged that will replace the carrying capacity removed from the Lakes?

Mr. DONALD. That is a matter I would prefer you to ask Mr. Hurley and Mr. Piez about.

Senator JONES. Right in connection with that, we passed a law last session permitting foreign ships to come in, in the hope they would take the place of these ships. Have any foreign ships come in?

Mr. DONALD. No. Not many, Senator.

Senator JONES. Have any gone to the Great Lakes? Have any foreign ships gone into the coastwise trade and the Great Lakes?

Mr. DONALD. As a rule, you see, it is a very small ship that goes into the lakes.

Senator JONES. I understand; but it was contended there were Canadian ships up there that would go into that coastwise trade.

Mr. DONALD. It is true. We have four ships called the Key boats up in Montreal—the Keystone Transportation Co. We have four of their boats coming down at the present time which are going to engage in that trade.

The CHAIRMAN. That act was passed October 6, 1917.

Senator JONES. Mr. Chairman, I would like to ask if these old by-laws have gone into the record?

The CHAIRMAN. Yes; they have.

Senator SHIELDS. Have you put the old by-laws and the new by-laws both in the record, or just the last ones?

The CHAIRMAN. I understand, the whole thing.

Mr. DONALD. Just the amended ones.

Senator SHIELDS. It would be better to file a copy of the original.

The CHAIRMAN. Better offer the original, and then the changes that have been made.

(The by-laws referred to will be found printed in full on page — of this volume.)

Senator NELSON. Has not the Government, as a matter of fact, secured a good deal of neutral shipping in our commerce here—in our shipping to South and Central America?

Mr. DONALD. Yes.

Senator NELSON. In order to relieve our shipping for overseas transportation?

Mr. DONALD. The efforts of the board are being exerted in that direction just now, and negotiations are going on with the representatives of at least four governments that we can get some of their tonnage in exchange for our commodities.

Senator NELSON. Yes; to relieve our tonnage for war purposes?

Mr. DONALD. That is the idea; yes, sir. We have been working with that idea.

The CHAIRMAN. The committee will now adjourn.

(Thereupon, at 5.25 o'clock p. m., the committee adjourned to meet at 2 o'clock p. m. to-morrow, Saturday, December 22, 1917.)

UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.

SATURDAY, DECEMBER 22, 1917.

UNITED STATES SENATE,
COMMITTEE ON COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 2 o'clock p. m., in the committee room, Capitol, Senator Duncan U. Fletcher, presiding.

Present: Senators Fletcher (chairman), Nelson, Jones, Sherman, Harding, and Johnson.

Present also: Hon. J. W. Alexander, chairman of the Committee on Merchant Marine and Fisheries, House of Representatives.

The CHAIRMAN. We closed with Mr. Donald yesterday. Are there any further questions to ask Mr. Donald?

Senator NELSON. Yes; I would like to ask one or two questions. I want to say to you, Mr. Donald, it is not for the purpose of going over that old controversy, but there was friction between Mr. Denham and Gen. Goethals while they were both on the board and corporation, was there not—disagreement?

STATEMENT OF HON. JOHN A. DONALD, COMMISSIONER OF THE UNITED STATES SHIPPING BOARD—Resumed.

Mr. DONALD. Yes, sir; I took that impression, sir.

Senator NELSON. I am not asking you what that was, but did not that disagreement tend to delay the program of shipbuilding? Didn't it work to delay that program?

Mr. DONALD. I can not quite see that it did, for this reason: We were preparing to build ships at the time that controversy was going on, and the authority and the appropriation for the money did not come forward until July, when this controversy pretty nearly came to a head. I think that, Senator, is about the situation.

Senator NELSON. Were there any contracts entered into while that friction was happening?

Mr. DONALD. There were. There were contracts entered into in anticipation of getting the money from yourselves.

Senator NELSON. What were they? For wooden ships or steel ships?

Mr. DONALD. Both wooden and steel.

Senator NELSON. Who were the contracts made with?

Mr. DONALD. I am sorry I can not recall that, Senator.

Senator NELSON. Were they made with people on the Pacific coast or on the Atlantic coast?

Mr. DONALD. I think they were made both on the Atlantic and the Pacific.

Senator NELSON. The chief wooden-ship building is carried on on the Pacific coast, is it not?

Mr. DONALD. And in the South.

Senator NELSON. Yes; and in the South.

Mr. DONALD. In the South and on the Pacific coast; yes, sir.

Senator NELSON. There was considerable shipbuilding; that is, considerable preparation for building wooden ships on the Pacific coast before you started in?

Mr. DONALD. Oh, there is no doubt about that, that the foreign nations came over here, such as Norway and England——

Senator NELSON. Hadn't they prepared several shipyards?

Mr. DONALD. They had prepared several shipyards, and were in course of constructing lots of vessels on the Pacific coast.

Senator NELSON. Yes; before you started in?

Mr. DONALD. Before the war broke out.

Senator NELSON. And they were engaged in that at the time your commission was organized?

Mr. DONALD. I think that is true, sir; yes, sir.

Senator NELSON. Do you know how many shipyards the English and Norwegians had on the Pacific coast?

Mr. DONALD. I can not exactly tell you, but I remember an estimate—without having charged my memory with it, I think it was about 150 or 160 ships.

Senator NELSON. Yes; I mean how many yards?

Mr. DONALD. How many yards?

Senator NELSON. How many shipyards, I mean.

Mr. DONALD. There had always existed shipyards on the Pacific coast.

Senator NELSON. Both Norwegian and English?

Mr. DONALD. No; I say there had always existed shipyards on the coast before the war, but they were very much augmented after the general European war started and before we got into it.

Senator NELSON. Augmented by whom?

Mr. DONALD. Augmented by our own shipbuilders.

Senator NELSON. By themselves, not by the Government?

Mr. DONALD. Yes.

Senator NELSON. And it is these ships principally you have commandeered, is it not?

Mr. DONALD. We have commandeered their ships on the Pacific coast and in all parts of the United States besides.

Senator NELSON. Was there any shipbuilding started for building wooden ships on the Gulf coast when you were organized?

Mr. DONALD. There were very few yards on the Gulf coast before the general European war started, but in the interval between the starting of the war and the breaking out of the war with Germany by ourselves there was a great number of yards started on the Gulf.

Senator NELSON. Do you remember at what places?

Mr. DONALD. I think there was a yard started in New Orleans, and in Sabine, Tex., and at Beaumont, Tex.——

Senator NELSON. Gulfport?

Mr. DONALD. And Gulfport, I think. Yes; Gulfport, too; and Jacksonville, too. We already had a shipbuilding plant there.

The CHAIRMAN. There were two yards already there, or parts of yards, and they started some new ones there?

Mr. DONALD. Yes.

The CHAIRMAN. Before July 11, when you got the order giving you legal power to commandeer ships on the stocks, had the board made any investigation as to what would be necessary for that commandeering—that is, the cost of it and the plans for putting it into effect, anticipating that they would be authorized to do that?

Mr. DONALD. The plans were certainly made by the board for the taking over of that tonnage which was building by the foreign nations prior to that, and we knew they would fall into our hands.

The CHAIRMAN. Mr. Denman states that (reading):

Realizing the necessity for the utmost expedition, both Gen. Goethals and myself, during the period when the power lay with the President, continued to make contracts for many steel and wooden vessels of the ordinary standard types, feeling confident that the President would ultimately place the power where one or the other could procure a ratification.

Mr. DONALD. That is really true, sir.

The CHAIRMAN. You believe that is so?

Mr. DONALD. Yes, sir; in fact, I think we made contracts beyond our allotment of $50,000,000, which was placed at our disposal, anticipating these appropriations to come forward later.

The CHAIRMAN. What do you know regarding this statement (reading):

It should be noted also that during the entire time of Gen. Goethals's employment I have signed, as soon as I have read them, every contract sent to me by him save one. This was signed after four days' delay.

Have you any information about that?

Mr. DONALD. I have not much information about that, because Mr. Denman signed all the contracts, and that was a matter between Gen. Goethals and himself; but I understand that the principle was that the general initialed or signed the contracts and sent them down to Mr. Denman for signature, and he signed them when he saw his initials there.

The CHAIRMAN. Mr. Denman further states (reading):

Having in view the Government's power to commandeer the ore products and scrap and the steel and iron plants, the price may well be lower.

I may as well start further back [reading]:

This was signed after four days' delay, during which time the tentative price of $95.20 a long ton for steel was changed to a tentative price of $56. The lower amount was justified as a tentative figure by a careful expert study of steel prices, based on the steel corporation's figures. Having in view the Government's power to commandeer the ore products and scrap and the steel and pig-iron plants, the price may well be lower. With that $50,000,000 of capital we obligated the Emergency Fleet Corporation, according to Gen. Goethals's summary, for 1,218,000 tons of wooden ships and 642,000 tons of steel ships (standard, not fabricated), at a total cost of about $275,000,000. We had 100 more wooden ships under negotiations, which we would have contracted for even if the delegation of power had been further postponed. It is quite safe to say that no corporate officers in the world have ever so far exceeded their authority. The submarine losses, constantly before me, made this action seem no more than normal.

Is that according to your recollection?

Mr. DONALD. I think that is so.

The CHAIRMAN. So that you were really going on with the work?

Mr. DONALD. I think Gen. Goethals entered into some contracts at a high price for steel tentatively, but the understanding was that if there was a reduction in price given by the steel companies the Government should get the benefit, and I have the price stated at something like 3½ cents a pound, which I think is $50 or $60 a ton, as against the $95 which the contracts were predicated on. But it was always understood the Government would get the benefit of any reduction when those contracts were made by Gen. Goethals.

Senator JOHNSON. Mr. Donald, during the time of the Denman-Goethals régime you were working continuously, preparing, pioneering the way, and, indeed, negotiating contracts, were you not?

Mr. DONALD. We were, sir.

Senator JOHNSON. I observe from the statement that yesterday was made by the chairman that in May there were 76 vessels contracted for, in June 137—and this would answer, perhaps, Senator Nelson, what you were asking—in July 138. The figures of course I assume to be correct.

Mr. DONALD. Yes, sir.

Senator JOHNSON. Now, the commandeering order was made on the 11th day of July, according to the date that has been given to us here. Do you recall that it was on the 24th day of July that the resignations of Gen. Goethals and Mr. Denman were tendered?

Mr. DONALD. I do, sir; yes, sir.

Senator JOHNSON. The time elapsing between the 11th day of July and the 24th day of July—can you specifically recall whether or not any ships in that period were delivered to foreign governments, or were delivered to private individuals?

Mr. DONALD. Senator Nelson asked me to produce those figures yesterday and to look it up, and I have done so, and here is a list of the ships built and that have so gone out from under the flag. So far as we can make out, from the 11th of July to the 3d of August there were two ships, but from June 15 to July 10——

Senator JOHNSON. That is the point.

Mr. DONALD. From June 15 to July 10 there were three ships, and from July 11 to August 3 there were two ships, making five altogether.

Senator JOHNSON. Now, the three ships that were delivered from under the flag, as you put it, between the time that the authority was granted and the time of the exercise of that auhority, July 11, were delivered to whom?

Mr. DONALD. Were delivered—well, I think one, the *Stolt-Nielsen;* but only three from June 15 to July 10, when the Executive order was put in our hands. The *Stolt-Nielsen* is one, to the Norwegian; the *War Tune*, to the British; and the *Astri*—she was a power ship—to the Norwegian. That is from June 15 to July 10.

Senator JONES. What was their tonnage?

Mr. DONALD. The tonnage altogether of the five ships was about 25,000 tons dead-weight.

The CHAIRMAN. Can you give the tonnage of each?

Mr. DONALD. The tonnage of the *Stolt-Nielsen* was 8,594, of the *War Tune* 3,000, and of the *Astri* 2,583.

Senator JOHNSON. Before you had any power to act in the premises it was known that the Executive order was to be promulgated, was it not?

Mr. DONALD. Of course, there is one thing about the Norwegians which I ought to explain. We were not very clear at that time what the status should be of dealing with the Norwegian ships, whether we had the power to keep them under our own flag, and there was an uncertainty at that time whether it could be put into effect, by reason of a treaty with Norway, made in 1827, which I understand is still the subject of research by the State Department.

Senator JOHNSON. But before you could act at all it was necessary that the Executive order be promulgated, was it not?

Mr. DONALD. Yes; that is true.

Senator JOHNSON. Now, the two ships that subsequently went from under the flag after the promulgation of the order went to whom, please?

Mr. DONALD. One to the Norwegian and one to the French—the *Storviken* of 7,000 tons dead weight, and the *Poitiers*, which is French, 3,000 tons. The *Poitiers* came from the Lakes. The *Storviken*, as far as I can recollect, was built out at Seattle, Wash.

Senator JOHNSON. At the time of the resignation of Gen. Goethals and Mr. Denman there were many contracts not yet signed but which had been prepared and were about to be entered into, were there not?

Mr. DONALD. I believe that is so, because Gen. Goethals sent for me the night before he resigned, and he said there were such contracts and they ought to be acted upon at once; and I called a meeting of the trustees on that same night that the general resigned and put the matter before them, and they elected Mr. Hurley and Admiral Capps. So there was no lapse of time.

Senator JOHNSON. Were those contracts entered into with reasonable dispatch by Admiral Capps, subsequently?

Mr. DONALD. I can not tell you about that. I would like if you would speak of all that period after the 27th—Mr. Hurley can give you more information than I can, for the reason that he immediately stepped into Mr. Denman's shoes. I didn't meet Admiral Capps much at that time at all.

Senator JOHNSON. Is it or is it not a fact that there were various differences with the contractors upon contracts that were pending at the time that Admiral Capps assumed control that caused delay?

Mr. DONALD. Well, I can only speak from my own personal experience in these matters, and I think the Admiral—from meeting him casually—told me he had found some contracts that required to be looked into very carefully.

Senator JOHNSON. How long did it take for that careful examination?

Mr. DONALD. I can not tell you, Senator.

Senator JOHNSON. Can you say whether or not a period of a couple of months elapsed with those contracts pending before they were entered into?

Mr. DONALD. I would not undertake to say anything of the kind.

Senator HARDING. You spoke, Mr. Donald, of being connected more with the operation of the fleet than otherwise?

Mr. DONALD. I have, Senator. In case you would like to know my activities, I think I spoke somewhat disjointedly yesterday about the German ships, which I had charge of—getting the ships ready for sea. In that regard, I saw a statement in the paper today—

which I hope is not in the record—in which it was stated none of those ships were ready for sea. I wish to state that these ships, repaired, commenced to be delivered to the allies or the representatives of the Government as early as the 3d and 4th of May after they came into our hands, which was about a month after the war broke out, when we took charge of those ships; and from that date up to the present—from that date right straight along the ships were being delivered to the allies.

Senator HARDING. That is not what I had in mind. Perhaps I have not expressed myself clearly.

Mr. DONALD. You have, Senator; but I just wanted to correct that in a general statement here.

Now, other activities are these: We have taken over from the Army the *Meade*—this was before the war broke out. We have taken over the *Meade*, which was an Army transport, and the *McClellan*, which was a refrigerating ship. We took those ships over from the Army. We took over the *Iris*, the *Boston*, the *Princeton*, and the *Rainbow* from the Navy Department, turning them into cargo ships. The repairs and alterations on the *Iris* and *Boston* are being carried on now. We bought a ship called the *Columbia* for towing across the Pacific these ships which were interned in Honolulu and which were so badly damaged.

The CHAIRMAN. Could you give us the dates, as nearly as you can, of those transactions?

Mr. DONALD. Well, that was all in April. The most of these ships were taken over and delivered by May and June. We found some of them had to be repaired in Honolulu and in the Philippine Islands. We had nine ships in Honolulu which were so found, and we had 23 in the Philippines. So those vessels which were incapacitated had to be towed; the vessels that could be repaired were repaired on the spot.

Senator NELSON. They had to be towed to this country for repair?

Mr. DONALD. Towed to this country; yes, sir; except from the Philippines, because that was too long a tow, but from Honolulu it was about 2,200 miles.

Senator NELSON. Where did you repair the Philippine ships?

Mr. DONALD. The Philippine ships were repaired, some in the Philippines and some in Hongkong.

I want to say that the recruiting officers and engineers—I think I touched on that yesterday and gave you an idea as to that activity. There has been a New York office established to operate the ships there, with a regular organization. I can not say how many there are there, but it has been going on for some time. In fact, it was established away back in April, when the war broke out.

There has been a chartering committee—I think this is in line with what you want.

Senator HARDING. I will ask you as you go along.

Mr. DONALD. There has been a chartering committee formed in New York for the purpose of regulating charters. When an officer has a ship from abroad he has got to submit her charter from our citizens to the foreign owner for the approval of our chartering committee. That is for the purpose of reducing and bringing down to a proper rate these extravagant and altogether ruinous and uneconomic

rates which have prevailed in this country, and charges which were taking our resources, inasmuch as they are paid to those foreign nations, and those foreign nations are paying those extravagant rates.

When I tell you that to Genoa there has been as much as $200 a ton paid, and when I tell you that the freight list of a ship will amount to as much as $1,300,000—a ship of, say, 7,000 or 8,000 tons—you can imagine what a tremendous drain that is on those Governments. The chartering committee is established for the purpose of breaking down those rates—breaking, in the first place, the neutrals' rates down. The neutral ships can not come and take those tremendously speculative rates and run away with them, because they have got to come to us first for their approval. We have a chartering committee in New York, composed of Mr. Welding Ring, Mr. Daniel Bacon, and Mr. J. B. Smull, three men who, I think, are pretty well known there; and I think they have the confidence of the public there; and all charters, no matter where they are, all over the country, have got to come to those gentlemen for approval.

Senator NELSON. Haven't you got the means now of regulating the charter rates indirectly of these foreign ships by means of the embargo rule and the letters of assurance? They can not sail in cargo from our ports without the letter of assurance?

Mr. DONALD. If they do not agree to our rates that we have stated, we say, "You get no coal, and you get no stores here"——

Senator NELSON. And "You get no assurance"?

Mr. DONALD. And "You get no assurance."

Senator NELSON. And "You get no bunker"?

Mr. DONALD. That is it.

Senator NELSON. In that way you control their rates like our own vessels?

Mr. DONALD. Exactly; bring it down to the price of our own ships.

Senator NELSON. Have you chartered, either directly or indirectly, any foreign ships from our service?

Mr. DONALD. We have chartered on the Pacific coast—I think I touched on this matter yesterday—to get their vessels on charter, with the understanding that they shall not be sent into the war zone, but to South America and other places, where they will have no risk.

Senator NELSON. From our ports to South America?

Mr. DONALD. Yes.

Senator NELSON. So as to relieve our ships here at home?

Mr. DONALD. Yes; that is the idea; to allow our ships to go into the war zone.

Senator NELSON. Yes; into the war business?

Mr. DONALD. Let me tell you—continuing this matter—that I have had a letter, and Mr. Carry, director of operations, has a letter from New York, saying that last week they approved 90 charters and they rejected 27. That is going on every week.

Senator NELSON. Were they charters of our own ships?

Mr. DONALD. No—oh, yes; some of them, I think, were charters of our own ships, but most of them were neutral ships, principally Norwegian ships. In addition to that, Mr. Carry is negotiating and is carrying out the charter of a large Norwegian ship of about 10,000 tons, which is a motor ship, now on the Pacific coast. That vessel

we have taken for 12 months' time, chartered at a reasonable price, with the idea of introducing into the Pacific trade motor ships instead of steamships, so that with the development of the oil industry in California we can compete against the Japanese, who are running with coal ships. We think we are going to have an advantage in that way.

Senator NELSON. Those are the Diesel motors?

Mr. DONALD. Diesel motor ships; yes. The idea is that if we get those vessels introduced into the trans-Pacific trade we will have an advantage against the Japanese, who, of course, are running with cheap tonnage and cheap wages. Now, if we can run motor ships, I think we should develop as much as we possibly can along that line, and I have so written to many of my friends on the Pacific coast, telling them I think it is their only salvation.

Senator NELSON. You think those ships, then, have proven themselves to be a success as freight carriers?

Mr. DONALD. Well, they have. As freight carriers they have been a success, but that all depends on the kind of construction they have and who constructs them.

Senator HARDING. Do you think, Mr. Donald, under the seamen's act, we have got a chance against Japanese competition in the Pacific trade?

Mr. DONALD. Well, Senator, that all depends on what we are going to do after the war for our sailors.

Senator HARDING. I mean under existing conditions, as they are to-day.

Mr. DONALD. Well, under existing conditions I need not tell you the Japanese on the Pacific coast are getting the largest share of our business.

The CHAIRMAN. That is, you mean because we have not got the ships?

Mr. DONALD. Because we have not got the ships. We have only got about 12 ships altogether under our flag on the Pacific coast. We have got the Pacific Mail——

Senator HARDING (interposing). You mean now the trans-Pacific trade?

Mr. DONALD. The trans-Pacific trade. I mean the eastern trade, which is going out and developing all the time. The exports which used to come to London and to Hamburg from the east are now, by reason of the difficulties of transportation through the Suez Canal, coming direct to our coast now, and we are doing a direct business with them now, which was not done before.

Senator HARDING. You spoke a moment ago of your director of operations?

Mr. DONALD. I am chairman of the committee on operations, but Mr. Carry is the director.

Senator HARDING. Does he operate from here?

Mr. DONALD. He operates from here.

Senator HARDING. Does he have charge of the embarking and disembarking of cargoes and the preparation of ships, or the superintendence or control of ships in loading?

Mr. DONALD. Well, when a ship is ready, he assigns it to a certain party to load, and the policy has been that people who have already

been owners should have the operation of the board ships on a commission basis; that they will become the agents of the board.

Senator HARDING. Then you do not attempt to interfere with their operations?

Mr. DONALD. Well, these chartered boats which we have taken from the American fleet, we turn back to the owners, and put them on the same trade that they were in before, unless they are going to the other side.

Senator HARDING. I do not think you quite understand me. We have requisitioned all the ships in this country, have we not?

Mr. DONALD. Yes, sir.

Senator HARDING. Now, does your director of operations superintend the handling of those ships in the service?

Mr. DONALD. Well, now, so far as getting crews for them and operating the ships physically is concerned—getting the crews and provisioning them—we do that ourselves out of our New York offices. But when it comes to placing the ships and sending them abroad, he puts them in the hands of parties who he thinks are suitable for moving the ships.

Senator HARDING. What proportion of ships is under the control of the Army—in the Quartermaster service?

Mr. DONALD. That is a very mooted question, Senator Harding, and perhaps we had better not say too much about that here.

Senator HARDING. The thing I want to get at will not be objectionable, I am sure. Who directs the operations of loading and unloading the ships in the service of the Army?

Mr. DONALD. That is done by a representative of the Quartermaster's Department of the Army in New York.

Senator HARDING. Is it the understanding of your board that it is done efficiently?

Mr. DONALD. I prefer not to express any opinion about that, sir.

Senator HARDING. Where can we get that information accurately?

Mr. DONALD. I think if you had Mr. Carry before you, he would probably tell you his views on that.

The CHAIRMAN. What are his initials. Is it Edward F. Carry?

Mr. DONALD. I think so.

Senator HARDING. The point I am trying to bring out is this: It is not my desire to reveal something disagreeable to the board, but there are reported inefficiencies in our service that need correction.

Mr. DONALD. Yes.

Senator HARDING. And this investigation is aimed to be helpful to the country.

Mr. DONALD. Senator Harding, all I can say is that we have got a man—we have recently appointed a man—to go from ship to ship in New York and give us a physical account of what every ship is doing that is in the Army employment; and we are averaging it up to find out what those ships are doing, how long they are detained, and so on. Your point is well taken, and I think that that information is a good thing to have.

Senator HARDING. Well, let me get at it in another way; can you say offhand approximately what the Government is paying per day for requisitioned ships?

Mr. DONALD. Well, they are supposed to pay to us the same amount as we pay for all ships, and we turn them over at the same rate as we get the privately owned ships for.

Senator HARDING. Let me put it another way: Is the service price for requisitioned ships approximately $500,000 a day?

Mr. DONALD. I do not quite grasp what you mean.

Senator HARDING. Well, I wish I could make myself clear. Is the payment to the private owner for requisitioned ships approximately $500,000 a day?

Mr. DONALD. I can not give you the figures on that.

Senator NELSON. You do not mean that for one ship, do you?

Mr. DONALD. No; he means the whole number of ships.

Senator HARDING. No; I mean all requisitioned ships.

Mr. DONALD. I can not tell you that.

Senator HARDING. The point I am trying to lead to is how much we are losing through the inefficient management of ships.

Mr. DONALD. Yes, sir.

Senator HARDING. Can you tell me how long a ship is employed in making a round trip to our base in Europe from New York?

Mr. DONALD. So far as I can understand, the average is between 50 and 60 days.

Senator HARDING. Is that above or below the normal mercantile voyage under private ownership?

Mr. DONALD. Well, Senator Harding, that is more than the usual time. I should say that such a voyage of a cargo ship should be made in about 45 days. But there are certain considerations to be taken into account, considerations in regard to the receiving points on the other side, and new arrangements to be made there, which I would not venture to offer an opinion on at all; perhaps there is some detention there which we know nothing about.

Senator HARDING. Well, does your board know what causes the delays at the American end of the line?

Mr. DONALD. Yes. I have just stated that we have established an officer in New York now for the purpose of giving us all the information as to how the Army ships, and all ships, are being detained in New York, if such is the case. We know that some of them are being detained for want of bunkers or the difficulty of getting fuel for them.

Senator NELSON. And waiting for letters of assurance?

Mr. DONALD. Oh, no; the actual scarcity of coal.

Senator HARDING. Do you think that Congress can be of any help in bringing to an end the conflict of authority in handling cargoes in New York?

Mr. DONALD. I think that if the departments all get together and coordinate and cooperate it can all be done without any assistance of that kind.

Senator HARDING. You know of nothing that could be done at the legislative end to assist?

Mr. DONALD. No; I do not think so.

Senator HARDING. You do think something ought to be done, however, do you not?

Mr. DONALD. Well, you have created a board, I think—the War Port Board—in New York, which I think will assist matters. Mr. Hurley has appointed, or rather I think the President has appointed a committee there. There is no doubt about it, that if there is any

detention it is only natural that when things get down to a settled groove matters will improve in the dispatching of ships. There is no doubt about it, because there are too many eyes on the situation just now.

Senator NELSON. Mr. Donald, how many of these commandeered ships that you have taken over are actually in service now? I believe you said there were 39 that you have commandeered—or how many all together? I think Mr. Hurley mentioned it yesterday. Perhaps I had better ask him. Do you remember, Mr. Hurley, how many commandeered ships you have?

The CHAIRMAN. How many ships have been commandeered?

Mr. HURLEY. Four hundred and ninety-odd, I think.

Senator NELSON. Four hundred and ninety ships in all?

Mr. HURLEY. I believe it is 431.

Senator NELSON. Four hundred and thirty-one?

Mr. HURLEY. Besides 11 we are building, of steel ships, there are four hundred and some odd that have been commandeered.

Senator NELSON. Four hundred and some odd ships that have been commandeered?

Mr. HURLEY. Yes.

Senator NELSON. How many of these commandeered ships are actually in the service now?

Mr. DONALD. Well, all the ships were taken at a certain date, and if they happened to be at an American port on the 15th of October they were taken over on that day, but if they were at some foreign port they had to come back to the United States before they were commandeered, so that they all automatically fell into the hands of the Shipping Board when they came back here.

Senator NELSON. But these were ships mostly in our yards that you have commandeered?

Mr. DONALD. No; I am talking about the American ships, which I understood you were talking about.

Senator NELSON. No; I referred to these commandeered foreign ships that you took. How many of them are actually in service?

Mr. DONALD. Well, I think it is about 50 or 60 all together, is it not, Mr. Sisler?

Admiral BOWLES. There are 49 vessels which have been taken into the service.

Senator NELSON. There are 49 vessels taken into the service of those that were commandeered in the yards.

Mr. DONALD. Of those that were commandeered in the yards; yes.

Senator NELSON. I refer to all ships, foreign and American.

Admiral BOWLES. Yes; all foreign and American ships.

Senator NELSON. The sum total, then, is that one ship, that was referred to yesterday, has been built, and then these 49 ships, or 50 in all, are the additions that we have secured through the operations of your board and your corporation?

Mr. DONALD. The answer to that, I think, is that we have taken steel ships, commandeered steel ships, and also a number of wooden vessels built on the Pacific coast and elsewhere, under 2,500 tons, and in fact, those power boats that have been built have not come under that commandeer; so they have been available to be delivered to their owners.

Senator NELSON. Those small ships are delivered to their owners?

Mr. DONALD. Yes.

Senator NELSON. And you did not commandeer them?

Mr. DONALD. No.

Senator NELSON. Has there been any trouble about getting competent seamen to man these vessels?

Mr. DONALD. Not so far; but we expect to have difficulty when this tremendous amount of tonnage comes forward to be delivered; we are making new arrangements to educate seamen to fill the requirements.

Senator NELSON. From what sources do you expect to recruit your seamen?

Mr. DONALD. We expect to recruit them mostly from around the ports; but to some extent also inland. Mr. Howard has the idea of going to some of the Middle States and getting young men from there.

Senator NELSON. Yes.

Mr. DONALD. He has a system which he is working on, and some friends are working with him, to get men to come to the seaboard and learn to be sailors.

Senator NELSON. Our Navy is getting a lot of recruits in the Middle West.

Mr. DONALD. Yes, they are.

Senator NELSON. In the rural communities.

Mr. DONALD. Yes. Admiral Bowles will make a complete answer to that question, Senator Nelson, regarding the commandeered ships. Is that satisfactory to you?

Senator NELSON. Yes. How many domestic ships, and how many foreign ships, were commandeered? How many of each class?

Admiral BOWLES. Of the requisitioned vessels building in the private shipyards on August 3, there have been completed and placed in the service up to date 49 ships.

Senator NELSON. Forty-nine ships?

Senator JONES. What tonnage?

Admiral BOWLES. Of a total of 300,865 dead-weight tons. Now, in addition, the Shipping Board have repaired and put in service former German and Austrian steamers, as follows: In the service of the Army, 22 vessels, or 182,555 tons.

Senator NELSON. Those have been turned over to the Quartermaster's Department of the Army?

Admiral BOWLES. I do not know. I only know it is the Army.

Mr. DONALD. I will answer that question by stating that we have about 28 ships chartered to the allied Governments; to the Italians, the Russians, and the French. And those vessels have been running for them for the last four or six months, since they were repaired.

Admiral BOWLES. May I interrupt one minute? In the service of the Army, but operated by the Navy, there are 18 steamers of 215,842 tons. Now there are in the service of the Army, of the ex-German and ex-Austrian vessels, owned by private parties, 4 steamers of 23,950 tons, making a grand total of 44 vessels of 422,347 tons.

Now these two classes that I have given you represent the additions to the merchant marine made through the operation of the Shipping Board and the Fleet Corporation to date.

Senator NELSON. Yes; that is just what we want—the facts.

Mr. DONALD. Yes; that is it.

Senator HARDING. May I ask the admiral a question, Mr. Chairman?

The CHAIRMAN. Yes; certainly.

Senator HARDING. You just reported 422,000 tons in the service of the Army, either directly or through the Navy. What is the estimated tonnage necessary to support a unit of the Army; what is necessary for each individual?

Admiral BOWLES. I do not know.

Mr. DONALD. I have heard it stated at various amounts.

Admiral BOWLES. And I do not know anybody who does know.

Mr. DONALD. No; it is very difficult to get at that. I think the English estimate is 8 tons per man—per month, I guess it is.

Senator HARDING. Eight tons per man per month?

Mr. DONALD. Yes.

Senator HARDING. That is hard to believe in itself. I want to ask you, Mr. Donald, a more pertinent question.

Mr. DONALD. Yes, sir.

Senator HARDING. In the report of your board here [indicating] you say:

"The operations of the vessels are intrusted, in large part, to the companies by whom they were formerly controlled, but all receipts have been for Government account."

Would you mind stating just what that arrangement is?

Mr. DONALD. Well, it means, sir, that we pay so much for the commandeered price of the ship.

Senator HARDING. That is from $1,000 to $3,000 a day, is it not?

Mr. DONALD. Well, I will state it in this way. Suppose a 5,000-ton ship brings in for her monthly hire from the Government, say, $55,000. We place that ship in the hands of an agent, and he goes out and is supposed to get us back our hire out of the freights which are charged to go over there. In other words, his freights will be very much higher than what we pay by the month; but the expenses of the ship, such as for coal and port charges, are taken in and added to the hire, and the rate which comes out proportionately for that is the rate that is charged, the rate which these parties are supposed to bring in to us. Perhaps I have not made it quite clear.

Senator HARDING. Yes; except that I would like to have you make it a little more definite.

Mr. DONALD. Suppose you take a vessel going over to France, and she costs $45,000 in hire, and she makes the trip in 45 days. That is $30,000 for one month and $15,000 for the other half month, making $45,000 for the hire of that ship. Then you have got your port charges, and your stevedoring charges, and your wharfage, and the charges at the other end, and the charges for fuel, and you put those all together; and the freight which we are supposed to get back is intended to recompense us for all of those expenses.

Senator HARDING. I wanted you to be a little more specific about what goes to the owner. He gets, of course, the $30,000?

Mr. DONALD. He gets $30,000 for that ship; he places the ship at so much; that is $1,000 a day he gets, is it not?

Senator HARDING. Yes.

Mr. DONALD. Out of that he has got to pay wages, provisions, engine and deck stores, and insurance; he must pay his own marine insurance. But the Shipping Board, if he goes into the war zone, pays him for his war-risk insurance; we take that risk ourselves. Out of his monthly hire he pays wages, provisions, engine and deck stores, and marine insurance.

Senator NELSON. And fuel?

Mr. DONALD. No; not fuel. The time charterer always pays for the fuel. But there are two kinds of charters—there is the net form of charter, which means that we are simply giving the bare boat, and the charterer supplies the crew and all the expenses, if we elect to do it that way.

Senator HARDING. You have the two kinds of contracts in force?

Mr. DONALD. We have two kinds of contracts; yes. Of course, they are just figured proportionately, you understand, so far as the monthly hire is concerned.

Senator HARDING. Then there are literally no earnings for the owner of the chartered vessel, save either the net charter, if you give him a net contract, or the net of a gross charter after he pays his wage and provision charges, etc.?

Mr. DONALD. We try to fix the rate of charter at a reasonable price so that he can make some money for himself and so that he will be protected in the period after the war and not have his profits taken away from him entirely. And I think that it is a very good spirit that the shipowners in New York and elsewhere have shown in this matter; they have welcomed this arrangement, and said, in substance, "We know that the present rates are ruinously high, and we are willing to accept these lower rates," because, of course, they could do better with their ships if they were on a speculative basis in these war times.

Senator HARDING. The regulation is generally accepted with good grace, is it not?

Mr. DONALD. It has been; yes. I think I can safely say that it has been. There have been some complaints, of course; some people do not want to sign the charters, and they object to this, that, or the other thing; but as a rule the plan is coming along all right.

Senator HARDING. I was going to ask some other questions about operations, but if Mr. Carry is coming on the stand, as that is in his immediate department, I prefer to ask those questions of him.

Mr. DONALD. Yes; he will tell you exactly what is going on in New York now.

Senator NELSON. What suggestions have you to make, Mr. Donald, if any, in regard to the expediting of shipbuilding and increasing our tonnage? What can you suggest to the committee that ought to be done, either by your board or your corporation or by Congress in the way of legislation?

Mr. DONALD. Well, I do not know any more that can be done besides what is being done at the present moment. I think that the thing to do is to remove all obstacles, all possible obstacles or delays, and have business management, because it is an enormous task, requiring the greatest efficiency and energy, to get the ships out. That is the only general answer I can give you.

Senator NELSON. Can you or any member of your board tell the committee approximately how many vessels you expect to get ready

for use, say in January; how many in February; and how many in March, and so on, month by month under your existing contracts and program?

Mr. DONALD. Yes. Well, Admiral Bowles and Mr. Piez, who know more about this matter than I do, are to follow me on the stand, and they will give you all of that information.

Senator NELSON. Very well. I asked that question because we now know from the statements of Admiral Bowles and yourself what we have got in the way of new ships, and we are anxious now to ascertain what we can look for in the future—in the immediate future.

Mr. DONALD. That is a very necessary thing, too; it is very necessary.

The CHAIRMAN. What is the American Bureau of Shipping, Mr. Donald?

Mr. DONALD. The American Bureau of Shipping is a classification society, which is established in this country, similar to the Lloyds Register in England, which is a classification society giving a character to ships. We are charged by the law with helping all that we possibly can to facilitate the establishment of insurance companies and of insurance facilities in this country instead of on the other side, and we are endeavoring—my idea has been to endeavor to build up our American record classification society to be equal in its regard by the public to the English Lloyds, so that eventually we can have an insurance authority which will be as good as Lloyds English society. I do not know that I make that clear.

The CHAIRMAN. Yes; I understand that; it is to pass on the designs, the plans and the specifications for the ships that the fleet corporation is to build.

Mr. DONALD. I think Admiral Bowles can tell you more about it than I can. But I understand that two-thirds of the tonnage we are building is to be classed in the American record, and some is to be classed in the Bureau Veritas, which is a French classification society; and some is to be classed in the English Lloyds. But I think I am safe in saying that the American record has got the greatest number of ships that are to be classed; and I think it is proper that they should have.

The CHAIRMAN. Has there been any delay occasioned by that bureau supervising your plans and changing the designs of ships, and so on?

Mr. DONALD. Has there been any change by them?

The CHAIRMAN. No. Has there been any delay occasioned by them?

Mr. DONALD. I have not heard of any, Mr. Chairman. But Admiral Bowles will know the particulars about that.

The CHAIRMAN. All right; we can ask him.

Senator NELSON. That means, as I understand your statement, that you are aiming to establish what might be called an American Lloyds?

Mr. DONALD. An American Lloyds; that is the idea.

Senator NELSON. Of such character and standing as to make it a basis for insurance in this country equal to the English Lloyds?

Mr. DONALD. That is the idea.

Senator JOHNSON. In answer to Senator Nelson you said the first desideratum was the removal of delays or obstacles to the carrying out of the shipbuilding program.

Mr. DONALD. I mean when the builders come to us they should treat with us the same as if we were private owners, and go ahead. and if there is any change in the plans or any delays to be worked out there will be no delay on our part.

Senator JOHNSON. You have made your arrangements so that now you have perfected your business arrangements?

Mr. DONALD. Mr. Harvey and Mr. Piez have done that.

Senator JOHNSON. So that part of the delay, and that sort of obstacle already are eliminated.

Mr. DONALD. I should say so.

Senator JOHNSON. Are there any other delays or obstacles to which you referred in answer to Senator Nelson?

Mr. DONALD. The only delays that I know about are in regard to labor troubles, but I would prefer not to go into that.

Senator JONES. You say that you prefer not to enter into that—because you do not know anything about it?

Mr. DONALD. Well, I know in a general way, but Mr. Stephens has had that in his department, in our office.

Senator NELSON. I understand; I heard to-day that a strike was threatened immediately over on the Pacific coast. Do you know anything about that?

Mr. DONALD. I have not heard about that; no. Mr. Piez will probably know about it.

Senator NELSON. I heard that a strike was impending over there, in the southern part of California.

Mr. PIEZ. That is in the metal-trade shops at San Francisco. Word came to us about that in the morning. We are taking steps about that now.

Senator HARDING. Referring to these forty-some ships commandeered in yards under construction, do you recall what the percentage of those ships was completed at the time of commandeering; that is, how far were they along at the time?

Mr. DONALD. Well, of course, those ships—my impression is that those ships were not further along—I prefer not to answer that. Admiral Bowles will give you that.

Senator HARDING. Very well. I will ask the admiral when he comes on the stand. I had just as leave have it from one source as from another.

Senator JOHNSON. Mr. Chairman, before you proceed with another witness, may I ask Mr. Hurley one or two questions?

The CHAIRMAN. Certainly.

Senator JOHNSON. In the statement that you read yesterday there were 996 vessels for which contracts had been made. I want to know does that mean all contracts, some of which are not being executed and some of which are being executed?

STATEMENT OF HON. EDWARD N. HURLEY, CHAIRMAN OF THE UNITED STATES SHIPPING BOARD—Resumed.

Mr. HURLEY. The last four contracts of 326,000 tons—that was in December—which included the Alexandria yard and two other yards wherein the total amount of 326,000 tons is not in actual course of construction.

Senator JOHNSON. That is about 326,000 tons?

Mr. HURLEY. Yes.

Senator JOHNSON. Aside from that, all the other vessels are in process of construction and all of the other contracts in process of execution?

Mr. HURLEY. Well, these contracts are executed, these last four, but the construction of the ships in these particular contracts has been delayed, of course, on account of being new yards, two of them; but, generally speaking, yes.

Senator JOHNSON. Do you mean, then, that we have under construction about 5,000,000 of tonnage?

Mr. HURLEY. Under contract and construction, yes; about 5,000,000 tons.

Senator JOHNSON. I am eliminating the figures 517,000 of the tonnage; that would cover those upon which no work has commenced at all. Now, could you give me a rough estimate of what percentage of that tonnage will be completed in 1918? I do not care for it exactly, but approximately.

Mr. HURLEY. Admiral Bowles has those figures and will be glad to give it in executive session if you want it.

Senator JOHNSON. If you prefer that, that is all right. Now, another thing. When you came into the office in July there were many contracts, were there not, then pending which had not been executed?

Mr. HURLEY. Yes, sir.

Senator JOHNSON. Now, those contracts were turned over by Gen. Goethals to Admiral Capps, were they not?

Mr. HURLEY. Yes.

Senator JOHNSON. Is it not a fact, Mr. Hurley, that there was a delay in the execution of many of those contracts for periods of two months or more?

Mr. HURLEY. Yes; there was $100,000,000 worth of contracts placed on my desk the first day I arrived that were O. K'd by Gen. Goethals, and they wanted my signature to them, and I asked Admiral Capps to review them. He was to be the general manager and superintendent of these ships, and I felt he should have his initials on them in addition Gen. Goethals's; and a number of the smaller contracts were delayed two weeks—the smaller ones. Some of the larger ones went over, like the American International and the Submarine Boat, and the admiral worked out a little different contract on different terms, and they were not placed. I have not the exact dates as to when they were placed, but they were not placed for some time afterwards.

Senator JOHNSON. Some months; yes.

Mr. HURLEY. Well, I will give you the total—I think 1,142,000 in September—I am guessing at that——

Senator JOHNSON. So that substantially from the latter part of July until September, because Admiral Capps wanted to investigate or to do something with respect to the contracts, a very large tonnage was delayed, and contracts for a large amount were delayed, aggregating many hundred thousand tons.

Mr. HURLEY. Contracts were presented on July 28 to me, and they were not let until September.

Senator JOHNSON. And by you in July were turned over to Admiral Capps?

Mr. HURLEY. Yes; they were O. K'd by Gen Goethals.

Senator JOHNSON. At that time the dual authority existed in the board; you had not then perfected the business arrangement you have since perfected?

Mr. HURLEY. No.

Senator JOHNSON. And Admiral Capps was assuming, as he had a right to assume under the by-laws that existed, that he was to do the work that was necessary in respect to those contracts?

Mr. HURLEY. Yes; he had full authority. I do not know whether the American International contract and these larger contracts were in this—I am only speaking of the contract as a whole, approved by Gen. Goethals—I could not say that, but I know the American International contract was not sent up for some time afterwards.

Senator JOHNSON. Now is it not a fact that you made no substantial change in the contracts that were then before you?

Mr. HURLEY. There was some change as to the payments, and some contracts were reduced in number. If a man had an order for 10 ships, they may have reduced it to 8. They were wooden and steel contracts. The changes in the American International were along the lines of percentage and in terms of taking care of the housing of employees and details of that kind.

Senator JOHNSON. Well, whatever the causes, the delay obtained there for a considerable period of time in those contracts.

Mr. HURLEY. Yes; if the contracts were ready when Gen. Goethals went out and were for $100,000,000 and initialed by him, of course they were not placed until September, and they were delayed.

Senator JOHNSON. Well, it is a fact that they were?

Mr. HURLEY. Well, I could not say that the contracts for the American International were ready for me to sign——

Senator JOHNSON. Leave that out; there were contracts aggregating something like $100,000,000 in July, ready——

Mr. HURLEY. Yes.

Senator JOHNSON. And those contracts were ready for signature when you came into office, but Admiral Capps wanted to do something in respect to them, so the delay was occasioned? Is not that the truth?

Mr. HURLEY. That is my understanding, that there were several contracts held up.

Senator JOHNSON. Was there ever a time when you made an investigation of the building of wooden ships and found that there was a slacking up or a breaking down in the wooden-ship building program?

Mr. HURLEY. Yes; we investigated conditions in the steel and wooden ships—this production committee of which Mr. Piez was chairman. He investigated with Mr. Mason and Mr. Day, and they found that there was a shortage of timber in the different yards, and we brought that to the attention of Admiral Capps and Admiral Bowles; and it was brought about by the Southern Pine Association in not carrying out their agreement to deliver the timber: and we held a meeting of the committee of the wooden-ship builders, and we promised to give them additional lumber. There is no question but what the wooden program was delayed on account of this shortage of lumber over a period of two or three months.

Senator JOHNSON. Did Admiral Capps have difficulty with the people with whom you had contracted that caused delays?

Mr. HURLEY. With the lumber contractors or the ship contractors?

Senator JOHNSON. Both.

Mr. HURLEY. Well, the complaint about not getting their material; of course they had their plants there ready to equip and build their ships——

Senator JOHNSON. Well, the differences that existed between the Admiral or the mode in which he wished to proceed and those with whom you had contracted, caused the delay?

Mr. HURLEY. Yes; there was a difference between the contractors and the admiral; and when they changed the design, of course that caused delay. They had to add additional lumber to the original design.

Senator JOHNSON. And it was this sort of thing, was it not, the delays that had thus been occasioned, that led you to the conclusion finally that you had to change the business organization?

Mr. HURLEY. That was one of the reasons, Senator.

Senator JOHNSON. And, then, it was after the brief time that Admiral Harris was with you that Mr. Piez——

Mr. HURLEY (interposing). Mr. Piez came before Admiral Harris. He was there a couple of weeks before Admiral Harris was appointed.

Senator JOHNSON. And subsequently you found it necessary to delegate him such powers, as you desired to keep in yourself a sort of absolutism, in order that the work might be properly done?

Mr. HURLEY. To keep in touch with the program.

Senator JOHNSON. You can say that one of the faults of the situation, if there was any fault at all, arose from the fact of the peculiar organization with which you were dealing, can you not?

Mr. HURLEY. Yes; which could not possibly continue and obtain results.

Senator JOHNSON. What was the date of the change; what day was it made?

Mr. HURLEY. That is, the change in the by-laws?

Senator JOHNSON. Yes; the methods.

Mr. HURLEY. About the 15th of November; or about 15 days before Admiral Capps resigned. The appropriation was nearly exhausted on the steel-ship program, and that was one of the reasons why some of these contracts were not closed.

Senator HARDING. When we read of the destruction of tonnage by submarine warfare—that is, registered tonnage, according to the Lloyds's standard?

Mr. HURLEY. That is the gross tonnage.

Senator HARDING. Well, the registered gross tonnage.

Mr. HURLEY. Pardon me. The English give out the gross tonnage because that is less than the dead weight, and the Germans give out the dead weight. For example, on a 5,000-ton boat there is 5,000 tons gross, and it is 50 per cent more in dead weight, or 7,500——

Senator HARDING. Because of the compressed character in weight, or something of that sort?

Mr. HURLEY. Yes; the dead weight, of course, is the cargo.

Senator HARDING. What I am getting at is this: You talk of so many, we will say 6,000,000 tons in contemplation, and you speak of dead-weight tons. Now, that is at least one and a half times gross tonnage, according to the English standard of reporting, is it not?

Mr. HURLEY. It is 50 per cent more; the dead-weight, yes.

Senator HARDING. Now, why do we use the term "dead weight" instead of the standard term?

Mr. HURLEY. All our contracts read dead-weight tonnage, and everything here is dead-weight tonnage; we figure on so much for dead-weight ton in building a ship.

Senator HARDING. That is, so much cargo-carrying capacity?

Mr. HURLEY. Yes; so much cargo-carrying capacity. Those are the terms we use here.

Senator HARDING. Is that a modern adoption of the Shipping Board?

Mr. HURLEY. Oh, no; that has been in practice for years. If you were building a private ship to-morrow, you would get a bid on it at so much per dead-weight ton. That designates the amount of cargo it carries.

Senator HARDING. When you contract for the building of a ship, is that the tonnage you contract on?

Mr. HURLEY. The dead-weight tonnage?

Senator HARDING. Yes.

Mr. HURLEY. Yes. Admiral Bowles will explain the technical difference on that. There are a few things I do not know about that.

The CHAIRMAN. But dead-weight tons also include the coal, I think. It includes the tons of cargo and the coal.

Senator NELSON. The bunker coal; yes.

Senator JONES. To what date do these figures with reference to the ship contracting part come up?

Mr. HURLEY. In December there were four contracts let, for 35 ships—up to the 21st of December. I do not think there have been any contracts let in the last few days.

Senator JONES. That comes up to what date?

Mr. HURLEY. Up to the 21st of December.

The CHAIRMAN. We will now hear Mr. Piez.

STATEMENT OF MR. CHARLES PIEZ, VICE PRESIDENT AND GENERAL MANAGER OF THE EMERGENCY FLEET CORPORATION.

The CHAIRMAN. What is your connection with the Emergency Fleet Corporation, Mr. Piez?

Mr. PIEZ. Vice president and general manager.

The CHAIRMAN. How long have you been engaged with the Shipping Board or the Emergency Fleet Corporation?

Mr. PIEZ. I became a member of the committee that Admiral Capps and Mr. Hurley appointed late in September.

The CHAIRMAN. What duties did the committee have?

Mr. PIEZ. The duty of the committee was to give a report from an outside viewpoint of the condition in the shipyards.

The CHAIRMAN. What was your business prior to that time?

Mr. PIEZ. I graduated in engineering at Columbia and was for many years chief engineer and general manager of the Link Belt Co., and later its president. The Link Belt Co. had four plants and

some 20 offices. I was also president of the Electric Steel Co. of Chicago, of the Canadian Link Belt Co., of the Illinois Manufacturers' Mutual Casualty Insurance Co.

The CHAIRMAN. What was the Link Belt Co.'s enterprise?

Mr. PIEZ. It is a designer and constructor of labor-saving machinery; building machinery for unloading vessels, storing and handling coal, and handling freight and other materials in bulk or package.

The CHAIRMAN. Where is their plant or plants?

Mr. PIEZ. We have one plant in Chicago; one in Philadelphia; two in Indianapolis, employing something over 4,000 men.

The CHAIRMAN. You were the president; are you still president of that company?

Mr. PIEZ. I am working under leave of absence now. I have been president for over 12 years.

The CHAIRMAN. What number of men does the other company you mentioned employ?

Mr. PIEZ. Some 300; and we have in addition some 20 offices in various parts of the country.

Senator NELSON. May I ask a question here?

The CHAIRMAN. Certainly.

Senator NELSON. Do these companies you have been connected with furnish supplies to these vessels?

Mr. PIEZ. They do not.

Senator NELSON. Or any of the equipment?

Mr. PIEZ. They do not.

Senator NELSON. Any equipment of any kind to these vessels that are being constructed under these Government contracts?

Mr. PIEZ. No.

Senator NELSON. None of them?

Mr. PIEZ. None of them.

The CHAIRMAN. You have had considerable experience in organizing and business affairs for effective work?

Mr. PIEZ. I think I have; yes, sir.

The CHAIRMAN. What have you to say with regard to the present organization of the Emergency Fleet Corporation?

Mr. PIEZ. It is organized along the lines that I would organize it if I had full power. The control is vested in the President, who can delegate it to such officer as he elects.

The CHAIRMAN. You have not any recommendations to make as to any changes in the organization, then?

Mr. PIEZ. None.

The CHAIRMAN. So thus far, Mr. Piez, have you found any need of any further legislation, further grant of power or authority on the part of Congress?

Mr. PIEZ. No, sir.

The CHAIRMAN. What have you to say with regard to the way the work is now proceeding under the control and jurisdiction of the Emergency Fleet Corporation and Shipping Board?

Mr. PIEZ. I think the organization is running along business lines and needs some expansion to take care of the increasing needs and increasing development of our business; and that is something that we are giving attention to.

The CHAIRMAN. Are you one of the trustees of the Emergency Fleet Corporation?

Mr. PIEZ. I was elected to that position, yes, sir, on the 15th of November.

The CHAIRMAN. You are not in any wise connected with the Shipping Board except as the Shipping Board is connected with the Emergency Fleet Corporation?

Mr. PIEZ. That is all. They are the sole customer of the Emergency Fleet Corporation.

The CHAIRMAN. Have you any suggestions to make as to the speeding up, as to how that could be accomplished, or how any delays could be cut out or avoided?

Mr. PIEZ. We are engaged now in a very comprehensive scheme of getting an additional supply of labor and training it. That is our present concern. We have developed a comprehensive scheme of housing. We are shy of appropriation for housing and we have got to work in conjunction with both the Navy and the War Departments.

In order to make our plans effective—because our housing problem is serious, largely in the congested districts in the East, and those districts are congested not only by reason of the business that the Emergency Fleet Corporation has brought into them but particularly because of the work which the War Department, the ordnance, and munition work has brought with it—so that any broad scheme of housing should be developed for the three departments, under, I believe, a centralized control. Of course were there specific plants which could be served by a housing program we could undertake it, but where a community has got to be served, and where that community serves the three departments, it is only fair that the three departments should contribute. You see in Chester and Wilmington and Philadelphia and Bridgeport there is a tremendous amount of munition work as well as shipbuilding work. The congestion existed there to some degree before we came into the market, and it is a very difficult task to build houses in a community of that sort and assign them only to workmen employed in the shipyards. They are bound to drift. We have got to provide additional accommodation for all labor that the Government needs and brings into that locality.

The CHAIRMAN. Was there any way of avoiding that situation by having plants developed, built up elsewhere, in less populous communities?

Mr. PIEZ. Well, I think that situation created itself a little, because prior to our entering the war the eastern manufacturers were very much more aggressive in the securing of contracts for foreign accounts than those in the West, and there was a very considerable congestion in those districts, before we went into the war. Naturally the existence of shipyards along the Delaware and along the Chesapeake brought further development along that line. It was natural that the original contracts should have been placed in those very districts. Our policy since has been to distribute that, and in all new contracts we make we go very carefully into the desirability of the location, the amount of labor that is available, and its freedom from congestion, and its freedom from difficulty in the matter of housing. That is being very carefully considered now and has been for sometime.

The CHAIRMAN. Are the plants now working full time as far as you know?

Mr. PIEZ. In steel I think that is true, very largely. In wood that is not the case, because we are still hampered by lack of the large timbers.

Senator HARDING. Apropos of that did not the modification of the original design of wood ship, in order to make it a stable vessel, require a piece of timber that is rather difficult to get?

Mr. PIEZ. Yes; but the Southern Pine Association agreed to make delivery of it.

Senator HARDING. Well, has the Southern Pine Association been able to get such timber anywhere in the South?

Mr. PIEZ. Not to the extent that it should have. They have fallen down very seriously.

Senator HARDING. Has it in fact been able to get any at all?

Mr. PIEZ. Only for a few schedules thus far. We are bringing a large amount of lumber of that size from the Pacific coast.

Senator HARDING. Can you say whether it would have been possible to have modified the design of the wooden ships so that timber could have been made available for that construction?

Mr. PIEZ. Well, I am not versed technically in the construction of vessels, and not well enough versed to answer that question definitely.

Senator HARDING. Well, as a matter of fact, is it not so that the exacting requirements of timber and the wooden ships have very much retarded the program and made it almost impossible to build?

Mr. PIEZ. I should not say that; I think the structure as it exists to-day is necessary to the strength of the vessel itself.

Senator HARDING. That is not in dispute——

Mr. PIEZ (interposing). Well, it is a very difficult matter to substitute any frame structure for a solid wooden beam in wood. In steel, of course, you can build up a girder. You can hardly do that in wood. You can not superimpose one beam on another and get equivalent strength. We have had to do that even in these beams, but we have had to have timbers of considerable depth, 12 by 28, I think, and of considerable length, 36, I think——

Senator JONES. Why not let more of those contracts in a country where those timbers are available?

Mr. PIEZ. I think that would be a good plan.

The CHAIRMAN. 14 by 14 by 48; that long, I think. Of course, that timber can be had.

Mr. PIEZ. It is a rare timber in yellow pine.

Senator JONES. It is not very rare on the Pacific coast.

Mr. PIEZ. No.

Senator HARDING. Does not the Ferris design require a 30-inch timber for the keel?

Mr. PIEZ. I do not know, Senator. I have not charged my mind with it. The specifications are available. I think they use a timber 26 or 27 inches each, but only in the design that is being built on the Pacific coast; but I have had so many other matters pressing—you can develop that by the examination of Admiral Bowles or the head of the technical division.

The CHAIRMAN. Immediately under you, as indicating the practical operation of business now, first state in a general way what is actually done.

Mr. PIEZ. I want to clear up this thought that I have seen emphasized in the last day or two, that what we have done in our organization is to reorganize along lines that exist in large corporations, in which the general manager is an appointed officer to whom certain functions are assigned. He is not clothed with absolute power over the entire conduct of affairs. That was the case in the Emergency Fleet Corporation.

The CHAIRMAN. Originally?

Mr. PIEZ. Originally; and the thought of that has been carried through even to the present day, perhaps, that the general manager should be clothed with complete authority. Now, the organization as it exists to-day is that executive control of the management is vested in the president. He has delegated to me as much of that as is necessary to the proper conduct and discharge of the affairs of the company.

Senator NELSON. He can overrule you at any time?

Mr. PIEZ. Well, that is the case in every business concern. I was vice president and general manager myself before I became president. If he has the ultimate responsibility he ought to have the authority, and he could then make a change quickly and promptly any time he chose. If I prove unsuccessful or incompetent I want to be relieved promptly, and he ought to have the authority in this emergency to relieve me promptly.

The CHAIRMAN. I think so.

Mr. PIEZ. I have been clothed with complete executive control over the management of affairs.

Senator NELSON. What affairs?

Mr. PIEZ. The affairs of the Emergency Fleet Corporation—the entire construction program.

Senator NELSON. And you had no experience in the construction of vessels before you became a member of this corporation?

Mr. PIEZ. Not in that sense; no. I had large experience in the construction of large engineering works—works of considerable magnitude.

Senator NELSON. But not shipbuilding?

Mr. PIEZ. No; not shipbuilding.

Senator NELSON. And you do not know anything about it except what you have acquired lately, do you?

Mr. PIEZ. No.

Senator NELSON. Well, do you not think it would be advisable to have a practical shipbuilder occupy a position like yours—a man who is versed in shipbuilding instead of a man who had run a belt line?

Mr. PIEZ. Well, pardon me, Senator——

Senator NELSON. It is rather personal, but we are after expert opinions.

Mr. PIEZ. Certainly; and I am perfectly willing to give you my opinion. I had an engineering training and for many years I acted as engineer. The problems in any large organization are not wholly technical; there are many problems of policy, of management, of organization, that are in most cases of greater moment than are the technical problems, and you will find at the head of every big institution either an unusual combination of technical skill and executive ability or an executive with a technical aide.

Senator NELSON. That is simply an argument you are making against my proposition, against what I suggested.

Mr. PIEZ. I am giving you my views.

Senator NELSON. It is simply an argument why a practical shipbuilder is not necessary in your position.

The CHAIRMAN. What have you in the way of aides in that direction, what departments are under you?

Mr. PIEZ. All the departments.

The CHAIRMAN. Name them, please.

Mr. PIEZ. The technical department is under the direct supervision of Mr. Ferris, who, I have been told, is one of the most competent designers of cargo ships in the country. The construction department is under Admiral Bowles—the construction of steel ships. It is unnecessary for me to give his record, because he is a very well known, a widely known constructor. My immediate aide is Mr. Ackerson, also a naval constructor. Mr. Radford is a graduate of Annapolis and was a naval constructor.

Senator JONES. He had nothing to do with merchant ships?

Mr. PIEZ. No; he had nothing to do with merchant ships, but Mr. Ferris has a very large staff, and Mr. Ferris is responsible for all the designs. The district officers are all men who have had experience in construction, and so are the inspectors, and the entire corps that come in contact with the practical side of our operations have had practical experience in construction.

Senator NELSON. But do you not find it rather difficult, as a nonexpert, to manage these experts that you refer to here—Admiral Bowles and these other practical men, both in designing and shipbuilding? Do you not find it uphill work, you never having engaged in shipbuilding, to direct those men? You are their superior, are you not?

Mr. PIEZ. I am. I do not find it very serious work; no, sir.

Senator NELSON. Do you not think that is putting the cart before the horse—to put you ahead of those practical men?

Mr. PIEZ. Well, it depends upon which side of the program you want to give position to. There is the question of policy and arrangement of work, and decisions may relate to a question of policy——

Senator NELSON. The decision comes from the President, and he is your superior officer.

Mr. PIEZ. I mean the organization policy. The general policy as to construction, the construction program, come from him and are developed through the means that the Shipping Board determines.

Senator NELSON. You took the place of Admiral Capps and of Admiral Harris. Is not that the place you occupy?

Mr. PIEZ. That is the place I occupy. I did not seek it, Senator; I want to say that.

Senator NELSON. Oh, no, no——

Mr. PIEZ. And I came very reluctantly.

The CHAIRMAN. To trace the methods of the actual business transactions that come under your supervision, Mr. Piez, how do they originate and what are the steps leading up to your action?

Mr. PIEZ. You mean the origination of a contract?

Senator NELSON. Yes.

Mr. PIEZ. Of course, the first department is the technical department. They have developed the various standard designs that are

being fabricated in our own agency yards. The contract division accepted certain designs which have been successfully used by existing shipyards. The contract is entered into on certain plans that we present to the bidders. We have a fairly definite program of construction ahead of us. That program is determined upon largely by the needs as the gentlemen of the Shipping Board in conference with the Emergency Fleet Corporation have determined—so many tank vessels, so many cargo vessels of a certain size, and so many of another size, single or double deck, as the case may be. The investigation then proceeds as to the character and competency, the financial ability and responsibility of bidders, and after a decision of whether the locality selected by the bidder is a proper locality to furnish labor without undue congestion and without undue expense for housing, the award is made after recommendation by the contract department, and now by the steel construction department. The contract then comes up to me for consideration and signature.

The CHAIRMAN. Who is the head of the contract department?

Mr. PIEZ. Mr. Radford. He was under Admiral Capps.

The CHAIRMAN. And the steel construction——

Mr. PIEZ. Admiral Bowles.

The CHAIRMAN. Then they come to you?

Mr. PIEZ. Then the contracts come to me; yes.

The CHAIRMAN. You have not had experience enough to state yet about any delays—whether any delays have occurred in handling contracts?

Mr. PIEZ. We have expanded our contract department recently in order to avoid delays. Of course, it sometimes takes time to look into the competency of contractors. We have found it best to do that first rather than to award the contract and find that we were dealing with men who were too inexperienced or whose condition would make rapid progress impossible.

The CHAIRMAN. If matters are presented to you which call for revision or change in the contract, you take it up with the heads of these other departments?

Mr. PIEZ. Yes. The contracts, of course, are approved by our legal department before final signature.

The CHAIRMAN. Does the committee desire to ask Mr. Piez any questions?

Senator HARDING. I do not know that it is particularly pertinent to ask of this witness, but I was observing the change in the by-laws of the institution. It is rather a revealing thing to me. Have you noticed from your observations, Mr. Piez, whether the conflict of authority under the original by-laws between the general manager and the president was the source of any delay in the progress of the Fleet Corporation?

Mr. PIEZ. No; I have not noticed that in the last five or six weeks while I have been in Washington.

Senator HARDING. Do you know whether any questions ever arose over the authority under the original by-laws for the general manager to have oversight and management of the business and the affairs and the power to employ and discharge all clerks, employees, and agents and determine their salaries?

Mr. PIEZ. I do not know as to that.

Senator HARDING. Do you think that the wide grant of authority given the general manager under the original provision was calculated to bring about a conflict of authority?

Mr. PIEZ. With the president as standing in the light of assuming public responsibility for the program; yes.

Senator HARDING. You think, then, that the situation has been improved by utterly wiping out the grant of authority to the general manager of the corporation?

Mr. PIEZ. I do. There was a possibility of trouble there.

Senator HARDING. Under the new by-laws he has no authority except the orders of the president?

Mr. PIEZ. No; the general manager is not included in the final by-laws.

Senator HARDING. He is eliminated entirely?

Mr. PIEZ. He is an appointed officer.

Senator HARDING. The duties are all devolved upon the president, and the vice president may act in his absence?

Mr. PIEZ. In his absence, and he has delegated to me the management of affairs even in his presence.

Senator HARDING. The most serious bone of contention, then, in the Fleet Emergency Corporation has been eliminated by the change of he by-laws?

Mr. PIEZ. I think so. The organization has been simplified and strengthened by reason of it, I think.

Senator HARDING. If the active man who formerly held the position of general manager now does not drive according to the policy of the directing head he can be removed by a wave of the hand?

Mr. PIEZ. Yes.

Senator HARDING. In other words, you have created one authority?

Mr. PIEZ. Centralized that authority, yes.

Senator JOHNSON. When you came into the board in September, I think it was—was that the time?

Mr. PIEZ. No; in November; November 15. I was simply asked to do some special work by Admiral Capps in the matter of reporting on certain conditions before that.

Senator JOHNSON. Was that in September?

Mr. PIEZ. I think it was about the middle or end of September. I am not definite as to the date, but it was about that time, I think.

Senator JOHNSON. Did you do that special work at that time?

Mr. PIEZ. Yes.

Senator JOHNSON. Did you make a report in writing?

Mr. PIEZ. I made a verbal report.

Senator JOHNSON. Was there any report in writing?

Mr. PIEZ. No; there was not.

Senator JOHNSON. Was that investigation you then made an investigation as to the various plants and their condition and the like?

Mr. PIEZ. It was simply to develop certain helpful suggestions that might occur to us after investigation of the plants.

Senator JOHNSON. Was it made because there had been any delay or any breaking down in the program?

Mr. PIEZ. I do not know as to that. Mr. Hurley told me that he would like to find out how conditions were, and our committee reported as nearly as they could on the condition of such plants as we investigated, reported orally.

Senator JOHNSON. Did you find out that there was a slacking up or delay in the building construction plan?

Mr. PIEZ. We had no previous knowledge of its rate of progress but we did find that practically all of the steel plants were working on a single shift, that the facilities were only being used a portion of the 24 hours that it was possible to work under emergency conditions.

Senator JOHNSON. They had facilities for continuous shifts, had they not?

Mr. PIEZ. They had; but in some cases they had material and in some cases they lacked material; but in quite a number of cases they had facilities for double turns.

Senator JOHNSON. Do you know whether or not prior to that time they had worked continuously on any occasions?

Mr. PIEZ. I do not.

Senator JOHNSON. What did you find in respect to the wooden-ship construction?

Mr. PIEZ. I found that there was some question as to the design, which we reported on.

Senator JOHNSON. Did you not find that there had been a delay, a slackening up?

Mr. PIEZ. Absolutely in that case, yes. There was a question of design and a very serious criticism of the delay in delivering the material.

Senator JOHNSON. How long were you engaged in the investigation that you suggest?

Mr. PIEZ. We ran into that situation of the wooden ship and immediately made our report, because we thought it needed immediate attention.

Senator JOHNSON. Do you know about when it was that you first undertook the investigation?

Mr. PIEZ. I do not know the exact date; no.

Senator JOHNSON. Do you know about how long it took you and how long it occupied?

Mr. PIEZ. The investigation was not very comprehensive, because we ran into this wooden-ship situation and immediately made a report, because we felt that the emergency fleet officers should know the condition there and take immediate steps to remedy it, and that practically concluded the work of the committee at that time.

Senator JOHNSON. How long were you engaged in the work?

Mr. PIEZ. Perhaps over a period of three or four weeks. I was not always present, but the other two members of the committee were, and we overlapped, so that some made an examination of one plant and others examined other plants.

Senator JOHNSON. From the time you began the investigation until you made the report——

Mr. PIEZ (interposing). Some three or four weeks.

Senator JOHNSON. Three or four weeks elapsed?

Mr. PIEZ. Yes.

Senator JOHNSON. You found the wooden-ship situation was so serious that you wanted to make an immediate report?

Mr. PIEZ. Yes.

Senator JOHNSON. And it was serious because the program was held up, was it not?

Mr. PIEZ. Yes; because the program was held up.

Senator JOHNSON. And the reasons it was held up were what, please?

Mr. PIEZ. Changes in specifications, repeated changes in specifications, the necessary modification or strengthening of the bottoms of the vessels, and then, more particularly, the failure to deliver the necessary pieces of lumber.

Senator JOHNSON. Who made the repeated changes in specifications to which you advert?

Mr. PIEZ. They were made by the Emergency Fleet Corporation; I don't remember what department.

Senator JOHNSON. Under what department would they be—under Admiral Capps?

Mr. PIEZ. I presume so, he being the general head; but more particularly under the technical department.

Senator JOHNSON. Now, do I correctly understand from that that there would be specifications given to those shipbuilders, and then from our central authority—that is, officially from Admiral Capps—there would come changes in those specifications?

Mr. PIEZ. Yes. Of course I want to say this, Senator, that in all engineering work that is quite usual; as you develop your plans you make changes——

Senator JOHNSON. You did not deem it usual in this instance, because you thought it was of sufficient importance to immediately report.

Mr. PIEZ. Well, of course, here was the serious question of whether the strength was adequate.

Senator JOHNSON. Were there any other things that you observed in your investigation that caused delay besides the steel companies not working continuously or on double shifts and those that were dealing with the wooden ships having specifications changed, and lack of material; was there any other cause of delay?

Mr. PIEZ. There was some complaint concerning the adjustment of requisitioned vessels, but that was merely a thing that affected the mental attitude of the builders.

Senator JOHNSON. You were quite exercised over the situation that you found after investigation, were you not?

Mr. PIEZ. Fairly so; yes.

Senator JOHNSON. Your committee were in concurrence with that, were they not?

Mr. PIEZ. Yes. More particularly on the wooden-ship program.

Senator JOHNSON. You felt that the program had been endangered and it was being unduly delayed, did you not?

Mr. PIEZ. Yes.

Senator JOHNSON. Now, that delay had been going on for how long a period, if you please?

Mr. PIEZ. It had been going on for some weeks at that time without any hope of immediate relief, because the large timbers did not seem to be available.

Senator JOHNSON. And you felt that our whole program was endangered unless relief was afforded, did you not?

Mr. PIEZ. Yes.

Senator JOHNSON. That was the reason for making that report at once, was it?

Mr. PIEZ. Yes.

Senator JOHNSON. And that was made to remedy the delay?

Mr. PIEZ. Yes.

Senator JOHNSON. What is the International Co., if you please?

Mr. PIEZ. The American International Co.?

Senator JOHNSON. Yes, sir; or who or what?

Mr. PIEZ. The American International Co. as organized—I have not looked them up recently, but I am getting this from the papers—they were organized largely to take care of foreign trade, some years ago, and afterwards expanded and purchased the New York Shipbuilding Co. This was before our entry into the war and before the organization of the Emergency Fleet Corporation.

Senator JOHNSON. Give me one or two instances of those who compose it, please. Who is at the head of it: what financial concern is back of it?

Mr. PIEZ. I think the National City Bank.

Senator JOHNSON. What individual is the head of the institution?

Mr. PIEZ. The man I come in contact with is Mr. Robinson, who is president of the operations at Hog Island.

Senator MARTIN. Will you tell me whether it is usual for a ship designer to furnish plans and specifications for a ship, which plans and specifications do not provide for the strength adequate for the work the ship is to do?

Mr. PIEZ. I do not think so.

Senator MARTIN. That was no more nor less than incompetency then?

Mr. PIEZ. Well, the wooden-ship building art was a rather lost art; there were no specific rules——

Senator MARTIN. But that does not answer the question. It may be because the art was lost, but that was incompetency, was it not?

Mr. PIEZ. I am not posing as an expert in that. I am simply reporting the conditions as I found them.

Senator MARTIN. But it does not take an expert to know that a man who undertakes to furnish a design for a ship ought to furnish plans and specifications that will provide the necessary strength for the work the ship is to do, and if those plans and specifications do not call for the necessary strength, then you would call the man who furnished them incompetent, would you not?

Mr. PIEZ. I want to say this; that the design had been passed on by the American Bureau——

Senator MARTIN. I do not care who passed on it. My question is, is it not incompetency in the ship designer to furnish plans and specifications that do not provide the strength necessary for the job the ship has to do or will be called upon to do?

Mr. PIEZ. That may be a question of opinion as to the strength. We are simply reporting a condition that we found.

Senator MARTIN. You think a competent ship designer, then, can furnish a plan for a ship that will provide for the ship being of such structure that it will go to pieces as soon as it goes into service?

Mr. PIEZ. I do not want you to commit me to that answer.

Senator MARTIN. I want to commit you to that or the other one.

Mr. PIEZ. I will stand by the first, then.

Senator MARTIN. That he would be incompetent, then?

Mr. PIEZ. I would not say that. I would say he was unfortunate——

Senator MARTIN. Unfortunately ignorant?

Mr. PIEZ. I would not go as far as that. Our technical staff was working under tremendously high pressure.

Senator MARTIN. I realize that and I do not expect perfection.

Mr. PIEZ. And there are certain conditions that ought to be borne in mind, I think, in criticism of that, and besides all that, there was a considerable lack of experience in wooden-ship building.

Senator HARDING. You say the design was passed upon by the American Bureau of Navigation?

Mr. PIEZ. I so understand.

Senator HARDING. Is that an organization comparable to the British Admiralty board?

Mr. PIEZ. No; it is the equivalent of the English Lloyds; it is the American Lloyds.

Senator NELSON. Do you not know that a lot of Norwegian shipbuilders had gone out on the Pacific coast and had built ships and were engaged in building wooden vessels on the Pacific coast before your corporation was organized?

Mr. PIEZ. I so understand. They built small vessels.

Senator NELSON. They were familiar with wooden-ship building?

Mr. PIEZ. I dare say they were. They turned out ships rapidly, but the design was small.

Senator NELSON. Is not about all the tonnage you got tonnage that came from those shipyards?

Mr. PIEZ. It is up to date, but it is not going to be very soon. Progress is being made in quite a number of yards; that is, on our wooden-ship building program, and I think the design meets the expectation and criticism of everybody now.

The CHAIRMAN. Without attempting to excuse anybody or justify anybody, might not this arise? In the opinion of a great many experts the design was a proper design and the ship would have the necessary strength for proper service, but in the opinion of others it might be improved on by giving it a little heavier timbers; might not that situation exist?

Mr. PIEZ. I think that was a situation. The design was pronounced adequate by some engineers, but the committee felt that there ought to be no question about it.

Senator NELSON. Who got up the designs for these wooden ships?

Mr. PIEZ. They were gotten up by the technical department, I think, of the Emergency Fleet Corporation.

Senator NELSON. Who were they—who were the men who got them up?

Mr. PIEZ. I don't know as to that. You would have to ask somebody else.

Senator HARDING. Was Mr. Ferris in charge?

Mr. PIEZ. I think he was. I am not certain as to that.

Senator HARDING. Who first approved the wooden-ship plan?

Mr. PIEZ. I am not certain as to that. I simply reported on a condition we found, without going into the antecedents at all.

Senator JOHNSON. Did you investigate conditions in the Gulf and the eastern and western ports?

Mr. PIEZ. No, sir; we did not. We ran into this situation in the East.

Senator JOHNSON. And your investigation was confined exclusively to the eastern conditions?

Mr. PIEZ. We started our investigation on the lake ports and then came down through the east, and then came upon this wooden-ship situation and made a report on it.

Senator JOHNSON. And there were no investigations of the Gulf or the western ports?

Mr. PIEZ. No, sir.

Senator JOHNSON. Is it the policy to continue wooden-ship construction?

Mr. PIEZ. We have felt that in the western shipyards, where the timber was available and where there were competent shipbuilders, we might continue it. I do not think we shall continue the program in the East, except to the extent of finishing out the contracts that have been entered into. In some few cases we will probably transfer contracts from yards that have not shown any progress to other yards that have shown ability to handle them.

Senator JOHNSON. But so far as the western shipyards are concerned the wooden-ship policy will continue?

Mr. PIEZ. Very probably; yes. Of course the vessels are very small, only 3,500 tons, and we do not want too many of those if we can get other steel vessels in their place.

Senator JOHNSON. Has the extent of the continuance of the policy yet been determined?

Mr. PIEZ. No. What we may do, simply for a time at least, will be transfer contracts that can not be carried out in existing eastern yards to western yards that are able to carry them out.

The CHAIRMAN. What do you find with respect to the steel situation? Do you think you can get an adequate supply of steel?

Mr. PIEZ. I think we can.

The CHAIRMAN. Who are the officers of the Southern Pine Co., with whom you have had dealings and promises to furnish timber?

Mr. PIEZ. I had no dealings with them, Senator, but I think it was Mr. Sullivan——

The CHAIRMAN. Do you know his initials?

Mr. PIEZ (continuing). If I am correctly informed. I do not know his initials. I think he is president of the Southern Pine Dealers' Association.

The CHAIRMAN. Are his offices here in Washington, or do you know?

Mr. PIEZ. I am uncertain as to that. Our purchasing agent, Mr. Brown, can tell you about that.

Senator NELSON. I think I did you a little injustice a while ago. I have looked these amended by-laws over, and if I correctly understand the position of general manager is practically abolished?

Mr. PIEZ. Yes.

Senator NELSON. Practically, there is no such thing?

Mr. PIEZ. Except by appointment.

Senator NELSON. It is not provided for in the by-laws?

Mr. PIEZ. No; it is not.

Senator NELSON. The original rule, section 4, reads like this [reading]:

The general manager shall be ex officio chairman of the executive committee. He shall have the general oversight and management of the business and affairs of the corporation, and shall have power to employ and discharge all clerks, employees, and agents; determine their salaries and prescribe and define their duties.

That is in the original by-laws?

Mr. PIEZ. Yes.

Senator NELSON. That is entirely eliminated now?

Mr. PIEZ. Yes.

Senator NELSON. And the by-laws now, as I understand them here as they are amended, do not provide for the office of general manager?

Mr. PIEZ. No, sir; they do not.

Senator NELSON. So that when my former question that I put to you in somewhat of a belligerent manner was asked, I thought you were general manager, as it was, under the old by-laws. There is no such thing?

Mr. PIEZ. There is no such office.

Senator NELSON. You are simply an employee under Mr. Hurley, the president of the Fleet Corporation?

Mr. PIEZ. That is all.

Senator NELSON. Like any of the others of these gentlemen?

Mr. PIEZ. That is all.

Senator NELSON. And therefore, indirectly, I have done you a little injustice.

Mr. PIEZ. I did not so take it, Senator.

Senator NELSON. I did not mean to do that.

Mr. PIEZ. I know that. I thought you were out for information, and I was certainly willing to give it.

Senator HARDING. Mr. Piez, as a little remnant of this wooden-ship matter, I noticed in the press last evening or the evening before, that a suit had been brought against the Emergency Fleet Corporation. Is that a remnant of the fiasco of the wooden ships?

Mr. PIEZ. I have not inquired as to that. I saw that myself, but I am not certain. Judge Payne can answer that question better than I can.

Senator JONES. Mr. Piez, these designs, for these wooden ships were known as the Ferris design, were they not?

Mr. PIEZ. Yes.

Senator JONES. And he got them up?

Mr. PIEZ. So I understand.

Senator JONES. He was supposed to be an experienced man along those lines?

Mr. PIEZ. Very; I think he is. I don't know how experienced he was in wood designs.

Senator JONES. Oh, you do not know how experienced he was in that?

Mr. PIEZ. I do not know. He is reputed to be the best cargo-ship designer in the country.

Senator JONES. Who found out that these designs were inadequate?

Mr. PIEZ. Pardon me.

Senator JONES. Who found out that these designs were inadequate?

Mr. PIEZ. There was some criticism by one of the contractors who had consulted a naval architect. The criticism came from there—the first criticism. There was some question about the location of the power plant, whether it was to be in the center or the stern of the boat, and other questions were brought up at that time.

Senator JONES. Matters of that kind ought to be pretty well settled by a man who has had large experience and had acquired a good reputation as a designer, ought there not, without any trouble?

Mr. PIEZ. I think so.

Senator NELSON. Senator Jones, let me interrupt you. Do you recall that wooden-ship building was almost obsolete, except up in Maine, where they build a few ships, but otherwise it was obsolete in this country, and the first men who started it up after the war commenced were a lot of Norwegians, who came over to the east coast and opened yards? That is the situation.

Senator JONES. But Mr. Ferris came into this corporation with a reputation of being a great designer. Where he acquired it I do not know.

Senator NELSON. It must have been from Norway, then. [Laughter.]

Senator JONES. That is just what I was going to ask, whether he had ever been over in Norway, or whether he is a Norwegian or not.

Mr. PIEZ. His name would not suggest that.

Senator JONES. You do not know whether he has had any experience——

Mr. PIEZ. No; I do not know as to that.

Senator JONES (continuing). As to the construction of wooden ships before he came in here or not?

Mr. PIEZ. No, sir.

Senator JONES. He is a regular employee of the corporation, is he not?

Mr. PIEZ. Yes.

Senator JONES On a regular salary?

Mr. PIEZ. Yes.

Senator JONES. Any design that he may have gotten up or submitted would be the property of the corporation?

Mr. PIEZ. Yes.

Senator JONES. And he would not be permitted to charge contractors or shipbuilders for that design?

Mr. PIEZ. Not unless his contract of hire gave him that privilege.

Senator JONES. There would not be any contract authorizing him to charge for that design, would there?

Mr. PIEZ. I do not know. A man who is taken out of the consulting practice may be permitted, I presume, to continue a certain part of his business. I do not know what his contract was.

Senator JONES. But, if he is furnishing design for the Emergency Fleet Corporation to be used by it, there surely would not be a contract permitting him to sell that design to contractors, would there?

Mr. PIEZ. There ought not to be.

Senator JONES. Do you know whether or not there was any such contract with Mr. Ferris?

Mr. PIEZ. I do not.

Senator JONES. You do not know whether he made any charges to the contractors?

Mr. PIEZ. I do not.

Senator JONES. You stated a while ago that you were short of money, and that that caused some delay or worked some delay in your housing plant?

Mr. PIEZ. Yes.

Senator JONES. Have you submitted any estimate to the Congress?

Mr. PIEZ. That estimate is incorporated in the suggestions in the report to be made by the housing committee, which is headed by Mr. Eidlitz.

Senator JONES. But that report has not been made yet.

Mr. PIEZ. I am not certain as to that.

Mr. JONES. So there has been no estimate sent down to Congress?

Mr. PIEZ. No. Congress is not to blame in that matter.

Senator JONES. You can not charge Congress with any delay there?

Mr. PIEZ. I simply wanted it reported so as to develop the urgency of it and ask for prompt consideration of it when it does come up.

Senator JONES. And whatever delay is occurring is occurring by reason of the failure of the administrative part of this corporation?

Mr. PIEZ. Yes. Of course, it is a rather difficult task to get the three to coordinate and develop their individual needs.

Senator JONES. I appreciated that, but I wanted it understood where the delay was resting.

Mr. PIEZ. No; I have made no charge as to that.

Senator JONES. I want to ask you whether or not in letting contracts for ships there have been conditions imposed upon any contractors along this line: That if they would take a contract for building a certain number of tank steamers, for instance, they would also be given a contract for certain other ships? Has any proposal of that sort been made to any contractors?

Mr. PIEZ. We have, I think; yes. We are very much in need of tank ships, and the contractors are not usually very willing to make them, because it requires a longer time to put them through.

Senator JONES. Do you not think, as a matter of policy, it would be rather unwise to force a man who has a plant that is fitted for the construction of a certain class of steamers, to take another class of steamers that he is not fitted for building? Do you not think it would be better to give him a greater number of steamers than he does have facilities for building, and require others, who have, for instance, facilities for building tank steamers, to build a greater number of tank steamers?

Mr. PIEZ. There is not available capacity enough, Senator, to build them, because many of the concerns who have been building tank steamers are partially tied up with the Navy needs, and our own needs are so great in the matter of tankers that we are trying to induce some of these new people to take on a few of them.

Senator JONES. Of course, I can see the needs all right, and what I am trying to get at is the policy which will give you the most tank steamers.

Mr. PIEZ. We are trying to get every one that is geared up right to take all they can, but it requires a certain kind of mechanics, and they are not always available, and you have got to be a little chary

about placing too many in one shipyard, for fear of tieing up the entire capacity.

Senator JONES. Is it not better to place a particular class of steamers in a yard that is fitted to build those than it is to require a yard to change its equipment and change its machinery in order to take on some class of shipbuilding that they did not contemplate and are not prepared to do?

Mr. PIEZ. Yes. But we must encourage and almost compel some of them to undertake it, because we have not capacity enough as it exists to-day.

Senator JONES. You would not as a policy require a shipyard fitted for building one class of steamers to take on another class unless conditions made it so that that was about the only course that you could pursue?

Mr. PIEZ. Unless absolutely imperative. We are trying not to use any coercion in these matters, but we are developing our needs and explaining them, and we had a case recently in which the contractor demurred to taking too many of them, and we try to be just as reasonable as our needs will permit.

Senator JONES. I am not suggesting any objection to the coercion proposition. But what I was getting at was, if it would not be an unwise policy, from your explanation, to force onto a yard, the building of ships that they were not fitted for?

Mr. PIEZ. It would if we were absolutely free agents and did not have this tremendous emergency for tankers staring us in the face.

Senator JONES. Even with that it would not be wise if there are other yards that are fitted that could be forced to expand.

Mr. PIEZ. Yes.

Senator JONES. I mean looking at it from your standpoint.

Mr. PIEZ. In our opinion we have utilized all the facilities for tank building that we can get, even the old yards, especially fitted for it to accept.

Senator JONES. I have heard of some companies that were not fitted, they claim, for the building of tank steamers and did not want to do it, but that it was insisted that they should take a certain number of tank steamers before they would get contracts for other classes of steamers.

Mr. PIEZ. Wherever people show a capacity to build ships and we feel they can show a capacity for building tank steamers we are using every possible persuasion that we can to bring them to it. You see a large number of the vessels that we have got under contract are oil-burning, and the transportation of oil is a very big problem.

Senator JONES. I am not questioning that. I question what is the wise policy of building the ships. Of course you have got to have them built.

Mr. PIEZ. We have got to have them built.

Senator JONES. It seemed to me that the best thing was to force the people who had facilities for building tank steamers to build to the limit, and, if necessary, to expand rather than to force on to a shipbuilding plant that is not prepared for building tank steamers the task of changing their equipment and getting ready for it.

Mr. PIEZ. We are trying to do that, Senator.

The CHAIRMAN. Are you building any barges, Mr. Piez?

Mr. PIEZ. I am not certain as to that. I think a few. We have two barges being built for the Panama Canal.

The CHAIRMAN. You are taking up the matter of building barges so as to accommodate inland navigation—the canals—and that sort of thing by way of helping out the transportation problems?

Mr. PIEZ. There was an appropriation made. Admiral Bowles tells me that the latest information available at this time shows a surplus of barges, but a lack of towing capacity—tugboats.

Senator HARDING. Mr. Piez, you were speaking a moment ago about the housing matter. Was there ever any doubt on the part of the trustees of the Emergency Fleet Corporation about having money available for that enterprise?

Mr. PIEZ. Not in regard to the shipyards that we are erecting and which will be operated by our agents, but yes as regards building housing facilities for yards over which we had no ownership or in which we had no interest.

Senator HARDING. Then you spoke of your investigating trip. Did you find progress in the erection of steel ships interfered with by changes of plans and uncertain inspections?

Mr. PIEZ. There was some complaint of that kind. Of course complaint of that kind is always to be expected in some degree. In those yards that we visited, while there was some complaint, there was not an unusual degree of complaint of that kind. There was some complaint at the Cramps because we wanted very decided changes made in the case of two passenger ships, which were desired to be changed over to troop ships, and that was a very necessary change, and so that complaint was, in a measure, groundless.

Senator JOHNSON. Mr. Piez, the construction of wooden ships has been demonstrated to be both feasible and practicable, has it not?

Mr. PIEZ. I think so. I was opposed to them at first, Senator, but I have confidence in their ability to be of service.

Senator JOHNSON. And the fact that other ships have been taken from the coastwise trade renders the construction of wooden ships quite essential, does it not?

Mr. PIEZ. Absolutely essential, in my mind, to help out with our program.

The CHAIRMAN. I understand you have discontinued the construction of the composite ships.

Mr. PIEZ. Yes. Orders were placed for 58, and no orders have been placed for many months.

Mr. JONES. You have a great many proposals from yards on the Pacific coast for wooden shipbuilding, have you not?

Mr. PIEZ. Yes. We are adopting a very much more liberal policy and encouraging private owners to build ships of a smaller tonnage—of 2,500 tons and under.

Senator NELSON. Are they building any wooden ships up on the coast of Maine?

Mr. PIEZ. Yes.

Senator NELSON. They used to do a good deal of shipbuilding up there?

Mr. PIEZ. They formerly did do a good deal of shipbuilding there.

Senator JONES. How are you encouraging the building of wooden ships for private account?

Mr. PIEZ. We are relieving them of certain commandeering restrictions when they are built for American account, and we have not commandeered vessels under 2,500 tons.

Senator JONES. Do you propose to help them in the way of getting whatever steel is necessary?

Mr. PIEZ. Yes; wherever we can, because we feel that where private enterprise attempts to do that sort of thing it must be in pursuance of some need that the localities have developed.

Senator JONES. But you will make them more subordinate to your own needs?

Mr. PIEZ. Absolutely subordinate. We try to keep control of it in order to offer no interference at all with our main program. The announcement of the policy which we are about to issue is covered by this announcement here [indicating] if you want it made a part of the record.

Senator JONES. I just want to emphasize the conditions on the Pacific coast and the facilities there that they have for building ships that you want, and then instead of following the policy that would lead to the transportation across the country of material to go into ships when transportation facilities are so short that the ships ought to be built where the material is?

Mr. PIEZ. Yes.

Senator JONES. And I know that there are a number of yards out there that would like very much to do it, and some of them have been trying to get contracts for the building of wooden ships for some time.

Mr. PIEZ. Yes.

Senator JONES. And I hope that the board will act pretty promptly in those matters.

The CHAIRMAN. If there is no objection, this will go into the record.

(The document submitted by Mr. Piez is here printed in full as follows:)

ANNOUNCEMENT OF POLICY WITH REGARD TO THE CONSTRUCTION IN AMERICAN SHIPYARDS OF SHIPS FOR PRIVATE ACCOUNT.

1. There is no policy of the board which would prevent a free construction of tugs and barges for American owners in American shipyards. On the contrary, the board is ready to encourage such construction on the Atlantic or Pacific coast or on inland waters.

2. In view of the necessity of devoting all steel shipbuilding resources to the Government's war program, it is the policy of the board, for the present, not to encourage construction of steel ships for private account, whether American or foreign, except for the above-mentioned tugs and barges.

3. There is no policy of the board to discourage the construction of wooden ships for private account where such construction will not interfere with the Government program.

4. Preference in granting permission for construction of wooden ships will be given to American owners, but in cases where no American owners apply foreign owners who will agree to the restrictions imposed by the board may, if such construction is in other respects approved, secure permission therefor. Persons or corporations desiring to construct ships in American yards should apply to the board for permission, giving the details of the proposed construction. Blank forms of applications can be obtained by applying to Charles Piez, vice president of the Emergency Fleet Corporation.

The shipbuilding facilities of the country having been largely increased by the board in the past six months, it will be the policy of the board hereafter to devote itself to the expansion of these new yards and the old yards rather than to the creation of any further new yards.

Senator NELSON. I just want to make a statement before the admiral proceeds, to the members of the board, and it is this: We feel on the upper Mississippi the sad want of barges to carry coal up to relieve the coal situation. If we had a fleet of barges there they could haul coal from the mouth of the Ohio, from Illinois and Iowa mines up the Mississippi River to the Twin Cities and distribute it from there to relieve a good deal of the difficulty that exists now in railroad transportation, and I would like to call the attention of the committee to the importance of that matter. It may be considered fairly a war measure, because it will relieve our railroads to a large extent.

Mr. HURLEY. Senator, we have appropriated $1,360,000 to be expended in building barges for the northern Mississippi.

Senator NELSON. That is very good, but what they need in addition to that is tugs.

Mr. HURLEY. Twenty-four barges and four tugs.

The CHAIRMAN. I think that same situation could be greatly relieved if we had barges on from Buffalo to New York. They tell me they need something like 100 barges there. I do not know.

Senator NELSON. On the Erie Canal?

The CHAIRMAN. On the Erie Canal; yes.

Senator SHERMAN. Mr. Chairman, I tried to get permission from Congress and from the department a year and a half or two years ago to spend $5,000,000 by the State of Illinois, just to promote the barge service, and could not get it. I think some of the members will recall the failure of a proposed amendment to enable Illinois to connect the Great Lakes and their cities with the Mississippi and Gulf. This would have given a barge service of great magnitude.

The CHAIRMAN. Admiral Bowles is present, and we would be glad to hear from him.

Senator JONES. Before the admiral proceeds I want to ask Mr. Piez a question. Mr. Piez, have you had any responses to your efforts to induce shipyards to go into the building of smaller wooden ships for private use?

Mr. PIEZ. We have had some responses. In each case we sent out applications, and it is being acted on and permission granted, but I think in only one case that I remember of a 1,100-ton vessel was built. Nothing has been done recently. We are just announcing this as a policy. Private owners have been discouraged heretofore in the building of small vessels, and we thought it was advisable, therefore, to make the general announcement of policy.

Senator JONES. This policy has been determined upon lately?

Mr. PIEZ. Yes, sir.

The CHAIRMAN. Now, we will hear Admiral Bowles.

STATEMENT OF ADMIRAL FRANCIS T. BOWLES, MANAGER OF THE DIVISION OF STEEL-SHIP CONSTRUCTION, EMERGENCY FLEET CORPORATION.

The CHAIRMAN. Admiral Bowles, state your name, your present occupation, and your prior occupation before becoming connected with the Shipping Board.

Admiral BOWLES. My name is Francis Tiffany Bowles, manager of the division of the steel-ship construction, in the Emergency

Fleet Corporation. I am sorry to have to begin so far back, Senator, on my record, but I graduated from the Naval Academy as an engineer in 1879. I graduated from the Royal Naval College in England as a naval architect in 1882. I was appointed to assistant naval constructor in 1881. I was four years the secretary of the Naval Advisory Board which had charge of the building of the White Squadron, and for 15 years following that I was the head of the Department of Construction in the Navy Yards, and I was for three years Chief Constructor of the Navy, just prior to Admiral Capps. I resigned from the Navy in 1903, and was, for 11 or 12 years the head of the Fore River Shipbuilding Co., at Quincy, Mass. In 1914 I retired from that position and have been engaged in various manufacturing businesses.

Senator NELSON. When did you become connected with the Shipping Board or the Fleet Corporation?

Admiral BOWLES. I took up my duties with the Emergency Fleet Corporation on the 13th of August?

Senator NELSON. This last August?

Admiral BOWLES. Last August.

I came, Mr. Chairman, prepared to answer specifically the questions that you, in your resolution of December 20, asked the Shipping Board.

The CHAIRMAN. Suppose we take those up in order, now, Admiral, beginning with the first one.

Admiral BOWLES. The first one, which I will read with your permission?

The CHAIRMAN. Yes.

Admiral BOWLES (reading):

1. An itemized statement of all contracts which have been let by and through the board and the subsidiary shipbuilding corporation thereof for the construction of ships, both steel and wood, since the establishment and creation of the Shipping Board. Such statement should give the full name of each person, firm, or corporation with whom each contract has been made; when organized and how long in operation; the place and locality where the shipbuilding under each contract has been or is being carried on.

I now lay before you a statement entitled "Table showing details regarding each contract for ships or hulls executed to date, together with summary contracts."

I am unable to furnish that portion of your demand which states when each company was organized, but have marked with an asterisk those yards which were known to be operating on January 1, 1917, taken from the reports of the Department of Commerce. In summary this shows——

Senator JONES. Admiral, have you data in connection with the letting of your contracts that will show when the company or organization to which you have let the contract was organized and how long it has been operating?

Admiral BOWLES. No; not with reference to old yards.

Senator JONES. That applies to the old yards?

Admiral BOWLES. That applies to the old yards.

Senator JONES. But you have the data with reference to new yards?

Admiral BOWLES. We have it with reference to the new yards.

This summary shows that the contracts awarded are 146 in number, and they have been awarded to 36 yards, which were old, on January 1, and 74 new ones.

Senator NELSON. Does that table there indicate whether those new yards were in existence when the contracts were made with them for building ships?

Admiral BOWLES. It does not.

(The tables referred to are here printed in full, as follows:)

[Confidential.]

Alphabetical list of contractors.

WOOD VESSELS.

Company.	Office.	Works.
Alabama Dry Dock & Shipbuilding Co.	Mobile, Ala.	Mobile, Ala.
American Shipbuilding Co.	11 Broadway, New York City	Brunswick, Ga.
Beaumont Shipbuilding Co.	Beaumont, Tex	Beaumont, Tex.
Babare Bros.	Tacoma, Wash.	Tacoma, Wash.
Benecia Shipbuilding Corporation	131 Leidesdorff Street, San Francisco, Cal.	Benecia, Cal.
Coast Shipbuilding Co.	504 Concord Building, Portland, Oreg.	Portland, Oreg.
Cumberland Shipbuilding Co.	Portland, Me.	South Portland, Me.
Coos Bay Shipbuilding Co.	Marshfield, Oreg.	Marshfield, Oreg.
Chandler, R. J.	Los Angeles, Cal.	Wilmington, Los Angeles, Cal.
Dantzler Shipbuilding & Dry Dock Co.	Moss Point, Miss.	Moss Point, Miss.
Dierks-Blodgett Shipbuilding Co.	Care of Dierks Lumber & Coal Co., Kansas City, Mo.	Pascagoula, Miss.
Feeney & Bremer Co.	Tillamook, Oreg	Tillamook, Oreg.
Foundation Co.	The Woolworth Building, New York City.	Passaic River, Newark, N. J.
Fulton Shipbuilding Co.	Los Angeles, Cal.	Head Morman Channel, Wilmington, Cal.
Freeport Shipbuilding Co.	Freeport, Me.	South Freeport, Me.
Grays Harbor M. S. Corporation	Aberdeen, Wash	Grays Harbor, Wash.
Graton Iron Works	50 Broad Street, New York City	Noank, Conn.
Grant Smith-Porter-Guthrie Co.	Multinomah Hotel, Portland, Oreg.	St. Johns, Oreg.
Gildersleeve Ship Construction Co.	Gildersleeve, Conn	Gildersleeve, Conn.
Geo. A. Gilchrest	60 Maine Street, Thomaston, Me.	Thomaston, Me.
Hillyer-Sperring-Dunn Co.	Jacksonville, Fla.	Jacksonville, Fla.
Hammond Lumber Co.	San Francisco, Cal.	Humboldt Bay, Cal.
Hodge Ship Co.	Moss Point, Miss.	Moss Point, Miss.
Housatonic Shipbuilding Co. (Inc.)	Stratford, Conn.	Housatonic River, Stratford, Conn.
Heldenfels Bros.	Beeville, Tex	Near Port Aransas, Tex.
Jahncke Navigation Co.	New Orleans, La.	Tchefunctu River, La.
Johnson Shipyards Corporation	2941 Richmond Ter., Mariners Harbor, Shooters Island, N. Y.	Mariners Harbor, New York City.
Kingston Shipbuilding Corporation	Kingston, N. Y	Rondout Creek, Kingston, N. Y.
Kruse & Banks Shipbuilding Co.	North Bend, Oreg.	North Bend, Oreg.
Kelly Spear Co.	Bath, Me.	Bath, Me.
Lake & Ocean Navigation Co.	R. 1124, 208 South La Salle, Chicago, Ill.	Sturgeon Bay, Wis.
Lone Star Shipbuilding Co.	111 Broadway, New York	Beaumont, Tex.
Maryland Shipbuilding Co.	Lexington Building, Baltimore, Md.	Sollers Point, Md.
McBride & Law	Beaumont, Tex	Naches Riveer, Beaumont, Tex.
J. M. McCammon	Houston, Tex.	Beaumont, Tex.
Murnan Shipbuilding Corporation	836 Commercial Trust Building, Philadelphia, Pa.	Pinto Island, Mobile, Ala.
J. M. Murdock	Jacksonville, Fla.	Jacksonville, Fla.
Midland Bridge Co.	Kansas City, Mo., 504-510 Midland Building; all mail to Houston, Tex.	Ship Channel, Houston, Tex.
Morey & Thomas	P. O. Box 619, Jacksonville, Fla.	St. Johns River, Jacksonville, Fla.
Meacham & Babcock Shipbuilding Co.	Seattle, Wash.	Salmon Bay, Wash.
McEachern Ship Co.	Portland, Oreg.	Astoria, Oreg.
Newcomb Lifeboat Co.	Hampton, Va.	Hampton, Va.
National Shipbuilding Co.	120 Broadway, New York City	Orange, Tex.
North Carolina Shipbuilding Co.	Morehead City, N. C.	Morehead City, N. C.
Nilson & Kelez Shipbuilding Corporation.	Seattle, Wash.	Seattle, Wash.
Peninsula Shipbuilding Co.	Portland, Oreg.	Portland, Oreg.
Portland Ship Ceiling Co.	130 Commercial Street, Portland, Me.	Portland, Me.
Potomac Shipbuilding Co.	Colorado Building, Washington, D. C.	Quantico, Va.
Rodgers, Geo. F., & Co.	Astoria, Oreg.	Astoria, Oreg.
G. M. Standifer Construction Corporation.	611 N. W. National Bank Building, Portland, Oreg.	Portland, Oreg.
Sloan Shipyard Corporation	Olympia, Wash	Seattle and Olympia, Wash.
Sanderson & Porter	52 William Street, New York City	Willapa Harbor, Wash.
Ship Constructing & Trading Co.	50 Broadway, New York City	Stonington, Conn.
Henry Smith & Sons Co.	7 East German Street, Baltimore, Md.	Baltimore, Md.

Alphabetical list of contractors—Continued.

WOOD VESSELS—Continued.

Company.	Office.	Works.
Southern Dry Dock & Shipbuilding Co.	Orange, Tex	Orange, Tex.
L. H. Shattuck (Inc.)	Manchester, N. H	Piscataqua River. Portsmouth, N. H.
Sommarstrom Shipbuilding Co	217 Front Street, San Francisco, Cal	Columbia City, Oreg.
Seaborn Shipyards Co	812 Leary Building, Seattle, Wash	Tacoma, Wash.
St. Helens Shipbuilding Co	900 Fife Building, San Francisco, Cal	St. Helens, Oreg.
Sandy Point Shipbuilding Corporation	Sandy Point, Me	Sandy Point, Me.
Tacoma Shipbuilding Co	Tacoma, Wash	Tacoma, Wash.
Traylor Shipbuilding Corp	Allentown, Pa. Cornwells Heights, Pa	Cornwells Heights, Pa.
Tampa Dock Co	Tampa, Fla	Tampa, Fla.
Universal Shipbuilding Co	515 Union National Bank Bld., Houston, Tex.	Houston Ship Canal, Harris City, Tex.
Union Bridge & Construction Co	Morgan City, La	Morgan City, La.
U. S. Maritime Corporation	502 Union Savings Bank Building, Washington, D. C.	Brunswick, Ga.
Wilson Shipbuilding Co	Astoria, Oreg	Astoria, Oreg.
Wrights Shipyards	Tacoma, Wash	Tacoma, Wash.
York River Shipbuilding Corporation	West Point, Va	West Point, Va.

STEEL VESSELS.

American International Corporation	140 North Broad Street, Philadelphia, Pa. (general correspondence).	Philadelphia, Pa. (Hog Island).
The American Shipbuilding Co	Foot of West Fifty-fourth Street NW., Cleveland, Ohio.	Various Great Lakes ports.
Baltimore Dry Dock & Shipbuilding Co.	Baltimore, Md	Baltimore, Md.
Bayles Shipyard (Inc.)	115 Broadway, New York City	Port Jefferson, Long Island, N. Y.
California Shipbuilding Co	Long Beach, Cal	Long Beach, Cal.
Downey Shipbuilding Corporation	120 Broadway, New York	Milliken, Richmond Borough, New York City.
Daniels, Oscar Co	Woolworth Building, New York City.	Tampa, Fla.
Erickson Engineering Co. (Inc.)	New York, N. Y.; eighteenth floor, Hanover National Bank Building, Nassau and Pine Streets.	Seattle, Wash.
Federal Shipbuilding Co	54 Dey Street, New York, N. Y	Hackensack River, N. J.
Groton Iron Works	50 Broad Street, New York	Groton, Conn.
	Groton, Conn	Alexandria, Va.
Hampton Roads Shipbuilding & Dry Dock Corporation.	Norfolk, Va	Norfolk, Va.
Jahncke Shipbuilding Co. (Inc.)	814 Howard Avenue, New Orleans, La.	New Orleans, La.
Los Angeles Shipbuilding & Dry Dock Co.	Box C, San Pedro, Cal. Los Angeles, Cal	Los Angeles Harbor, Cal.
Merrill-Stevens Co	Jacksonville, Fla	Jacksonville, Fla.
Moore & Scott Iron Works	San Francisco, Cal	Oakland, Cal.
Merchant Shipbuilding Corporation	165 Broadway, New York City. (Correspondence: Finance Building, Philadelphia, Pa.)	Bristol, Pa.
Newburgh Shipyards (Inc.)	Newburgh, N. Y	Newburgh, N. Y.
Patterson-McDonald Shipbuilding Co	Seattle, Wash	Seattle, Wash.
Pacific Coast Shipbuilding Co	First National Bank Building, San Francisco, Cal	Suisun Bay, San Francisco, Cal.
Pensacola Shipbuilding Co	155 North Clarke Street, Chicago, Ill	Pensacola, Fla.
Skinner & Eddy Corporation	Smith Building, Seattle, Wash	Seattle, Wash.
Seattle Construction & Dry Dock Co	Seattle, Wash	Do.
Southern Shipbuilding Corporation	Charleston, S. C	Charleston, S. C.
Sun Shipbuilding Co	1428 South Penn Square Philadelphia, Pa.	Chester, Pa.
Saginaw Shipbuilding Co	Saginaw, Mich	Saginaw, Mich.
Submarine Boat Corporation	5 Nassau Street, New York, N. Y	Newark, N. J.
Western Pipe & Steel Co. of California	San Francisco, Cal	South San Francisco, Cal.

COMPOSITE VESSELS.

Mobile Shipbuilding Co	Mobile, Ala	Mobile, Ala.
Merrill-Stevens Co	Jacksonville, Fla	Jacksonville, Fla.
Supple & Ballin	Portland, Oreg	Portland, Oreg.
Terry Shipbuilding Corporation	Savings Bank & Trust Co., Savannah, Ga.	Port Wentworth Terminal, Savannah, Ga.

Executed contracts—Memorandum showing number of ships, total tonnage, total cost, and cost per dead-weight ton of complete ships or hulls.

(As of Dec. 17, 1917.)

COMPOSITE (COMPLETE).

No.	Contract company.	Number of ships.	Total tons.	Total cost.	Cost per dead-weight ton.
[1] 1	Merrill Stevens Co	12	42,000	$5,712,000	$136.00
[1] 9	Terry Shipbuilding Corporation	20	70,000	9,520,000	136.00
31	Supple & Ballin	8	32,000	4,400,000	137.50
44	Mobile Shipbuilding Co	18	63,000	8,100,000	128.57
	Total	58	207,000	27,732,000	133.97

STEEL (COMPLETE SHIP).

[1] 2	Merrill Stevens Co	4	24,000	$3,864,000	$161.00
[1] 4	Los Angeles Shipbuilding & Dry Dock Co	8	70,400	10,883,840	154.60
10	Skinner & Eddy Corporation	6	52,800	8,400,000	159.09
[1] 13	Seattle Construction & Dry Dock Co	10	75,000	13,125,000	175.00
[1] 18	Moore & Scott Iron Works	10	94,000	15,022,516	159.81
[1] 26	Baltimore Dry Dock & Shipbuilding Co	8	70,400	11,123,200	158.00
[1] 30	Downey Shipbuilding Co	10	75,000	11,625,000	155.00
[1] 33	Sun Shipbuilding Co	4	40,000	5,684,000	142.10
48	Western Pipe & Steel Co. of Cal	8	70,400	10,824,000	153.75
[1] 57	Groton Iron Works	6	52,800	8,184,000	155.00
61	Saginaw Shipbuilding Co	6	21,000	3,360,000	160.00
63	California Shipbuilding Co	3	18,000	2,725,320	151.41
[2] 83	American International Corporation	50	[3] 375,000	57,750,000	154.00
[2] 83	American International Corporation (option exercised)	70	[3] 560,000	115,500,000	206.25
[2] 86	Submarine Boat Corporation	50	[3] 250,000	39,375,000	157.50
[2] 86	Submarine Boat Corporation (option exercised)	100	[3] 500,000	75,600,000	151.20
[2] 87	Merchant Shipbuilding Corporation	40	[3] 360,000	54,776,320	152.15
91	Newburgh Shipyard (Inc.)	4	36,000	6,177,600	171.60
92	Los Angeles Shipbuilding & Dry Dock Co	10	88,000	15,136,000	172.00
93	Jahncke Shipbuilding Co. (Inc.)	6	30,000	4,950,000	165.00
94	Hampton Roads Shipbuilding & Corporation Dry Dock	4	29,200	4,818,000	164.68
95	Federal Shipbuilding Co	10	96,000	15,500,000	161.46
97	Oscar Daniels Co	10	95,000	15,390,000	162.00
98	Erickson Engineering Co. (Inc.)	10	94,000	15,980,000	170.00
99	Bayles Shipyard (Inc.)	4	20,000	3,300,000	165.00
100	Patterson-McDonald Shipbuilding Co	8	70,000	11,968,000	170.00
101, 106	American Shipbuilding Co	6	21,300	4,235,250	198.84
107, 140	do	34	120,700	24,820,000	205.63
141	Southern Shipbuilding Corporation	16	120,000	19,440,000	162.00
142	Pacific Coast Shipbuilding Co	10	94,000	15,792,000	168.00
144	Pensacola Shipbuilding Co	10	90,000	14,580,000	162.00
145	Groton Iron Works	12	112,800	18,048,000	160.00
146	The Atlantic Corporation	10	88,000	14,080,000	160.00
	Total	557	3,914,200	651,627,046	166.48
42	Alabama Dry Dock & Shipbuilding Co. (barges)	2	[4] 15,000	1,091,302	72.75

WOOD (COMPLETE SHIP).

3	G. M. Standifer Corporation	10	35,000	$5,000,000	$142.86
[2] 5	Peninsula Shipbuilding Co	4	16,000	2,000,000	125.00
6	Sloan Shipyard Corporation	16	56,000	7,840,000	140.00
[2] 23	Traylor Shipbuilding Corp	10	35,000	5,000,000	142.86
25	Lake & Ocean Navigation Co	1	3,500	450,000	128.57
32	National Shipbuilding Co	12	56,400	7,560,000	134.04
[2] 40	Grant Smith-Porter-Guthrie Co	8	28,000	4,000,000	142.85
143	Meacham & Babcock Shipbuilding Co	4	14,000	2,220,000	158.57
	Total	65	243,900	34,070,000	139.69

[1] Contracts let on the cost per D. W. ton basis.
[2] Contracts let on the cost plus basis.
[3] Consideration should be given the corporation's obligation to bear the expense of the construction of plant, ways, etc.
[4] Consideration should be given the cost of steel which the corporation under the agreement is to furnish.

Executed contracts—Memorandum showing number of ships, total tonnage, total cost, and cost per dead-weight ton of complete ships or hulls—Continued.

WOOD (COMPLETE SHIP) (Emergency Fleet Corporation obligated to furnish machinery).

No.	Contract company.	Number of ships.	Total tons.	Total cost.	Cost per dead-weight ton.
22	Newcomb Lifeboat Co	4	14,000	$1,470,332	$105.02
[1] 34	Grant Smith-Porter-Guthrie Co	12	42,000	3,600,000	85.71
	Total	16	56,000	5,070,332	90.54

WOOD HULLS.

7	Grays Harbor M. S. Corporation	4	16,000	$1,260,000	$78.75
8	Coast Shipbuilding Co	4	14,000	1,200,000	85.71
[1] 11	Sanderson & Porter	10	35,000	3,000,000	85.71
[1] 12	Maryland Shipbuilding Co	6	21,000	2,100,000	100.00
[1] 14	Foundation Co	10	[2] 35,000	3,000,000	85.71
15	Groton Iron Works	12	42,000	3,600,000	85.71
16	Ship Construction & Trading Co	2	7,000	600,000	85.71
17	Hillyer-Sperring-Dunn Co	4	14,000	1,200,000	85.71
19	Portland Ship Ceiling Co	4	14,000	1,200,000	85.71
20	Universal Shipbuilding Co	12	42,000	3,600,000	85.71
21	McBride & Law	4	14,000	1,200,000	85.71
24	American Shipbuilding Co	4	[3] 14,000	1,200,000	85.71
27	Tampa Dock Co	4	[4] 14,000	1,200,000	85.71
[1] 28	Union Bridge & Construction Co	6	21,000	1,800,000	85.71
[1] 29	Jahncke Shipbuilding Co. (Inc.)	6	21,000	1,800,000	85.71
35	Gildersleeve Ship Construction Co	2	7,000	600,000	85.71
36	Lone Star Shipbuilding Co	8	28,000	2,400,000	85.71
37	Kingston Shipbuilding Co	4	14,000	1,200,000	85.71
38	Johnson Shipyard Corporation	3	10,500	900,000	85.71
39	Dierks Blodgett Shipbuilding Co	6	21,000	1,740,000	82.86
41	Henry Smith & Sons Co	8	28,000	2,400,000	85.71
[1] 43	Potomac Shipbuilding Co	7	24,500	2,100,000	85.71
45	J. N. McCammon	2	7,000	600,000	85.71
46	Hammond Lumber Co	2	7,000	580,000	82.86
[1] 47	Alabama Dry Dock & Shipbuilding Co	2	7,000	600,000	85.71
49	Murnan Shipbuilding Corporation	4	14,000	1,140,000	81.43
50	Geo. A. Gilchrest	1	3,500	300,000	85.71
51	Hodge Ship Co. (Inc.)	4	14,000	1,200,000	85.71
52	Southern Dry Dock & Shipbuilding Co	5	17,500	1,500,000	85.71
[1] 53	J. M. Murdock	2	7,000	600,000	85.71
[1] 54	Midland Bridge Co	6	21,000	1,800,000	85.71
55	U. S. Maritime Corporation	6	21,000	1,800,000	85.71
56	North Carolina Shipbuilding Co	2	7,000	600,000	85.71
58	Morey & Thomas	4	14,000	1,200,000	85.71
59	Cumberland Shipbuilding Co	9	31,500	2,700,000	85.71
[1] 60	L. H. Shattuck (Inc.)	18	[5] 63,000	5,220,000	82.86
62	York River Shipbuilding Corporation	8	28,000	2,396,000	85.57
64	Kruse & Banks Shipbuilding Co	6	21,000	1,740,000	82.86
65	Fulton Shipbuilding Co	4	14,000	1,150,000	82.14
66	Freeport Shipbuilding Co	1	3,500	300,000	85.71
67	Sommarstrom Shipbuilding Co	4	14,000	1,120,000	80.00
68	Kelley Spear Co	1	3,500	300,000	85.71
69	Meacham & Babcock Shipbuilding Co	2	7,000	580,000	82.86
70	Wilson Shipbuilding Co	3	10,500	900,000	85.71
71	Beaumont Shipbuilding Co	4	14,000	1,200,000	85.71
72	Coos Bay Shipbuilding Co	4	14,000	1,120,000	80.00
[1] 73	Housatonic Shipbuilding Co	10	[6] 35,000	2,775,000	79.29
74	Nilson & Kelez Shipbuilding Corporation	4	14,000	1,200,000	85.71
75	Geo. F. Rodgers & Co	4	14,000	1,200,000	85.71
76	Seaborn Shipyards Co	8	28,000	2,400,000	85.71
77	St. Helens Shipbuilding Co	2	7,000	600,000	85.71
78	Babare Bros	1	3,500	290,000	82.86
79	Ralph J. Chandler	2	7,000	580,000	82.86
80	Sandy Point Shipbuilding Co	2	7,000	600,000	85.71
81	Benecia Shipbuilding Co	2	7,000	600,000	85.71
82	Wright Shipyards	2	7,000	600,000	85.71
84	Feeney & Bremer Co	1	3,500	300,000	85.71
85	Tacoma Shipbuilding Co	4	14,000	1,200,000	85.71

[1] Contracts let on the cost plus basis.
[2] $364,500 for the construction of ways, etc., has not been included in this figure.
[3] $32,000 for the construction of ways, etc., has not been included in this figure.
[4] $28,000 for the construction of ways, etc., has not been included in this figure.
[5] $360,000 for the construction of ways, etc., plant, railway approaches, has not been included in this figure.
[6] $225,000 for plant improvements and extensions.

Executed contracts—Memorandum showing number of ships, total tonnage, total cost, and cost per dead-weight ton of complete ships or hulls—Continued.

WOOD HULLS—Continued.

No.	Contract company.	Number of ships.	Total tons.	Total cost.	Cost per dead-weight ton.
88	Dantzler Shipbuilding & Dry Dock Co	6	21,000	$1,800,000	$85.71
89	Heldenfels Bros	4	14,000	1,200,000	85.71
90	Hammond Lumber Co	2	7,000	600,000	85.71
96	McEachern Ship Co	10	35,000	2,800,000	80.00
	Total	298	1,045,000	88,691,000	84.87
	Grand total	994	5,466,100	807,600,378	.....
	Alabama Dry Dock & Shipbuilding Co. (not included in totals)	2	15,000	1,091,302	72.75
	Allowing that it will cost approximately $200,000 to complete the hulls, the following is an estimated grand total to cover contracted vessels complete:				
	Estimated grand total	994	5,466,100	870,080,378	159.18

Table showing details regarding each contract for ships or

[*Yards which are shown as operating

Contract No.	Date.	Type of construction.	Hull or complete ship.	Company.	Location of works.	Office address.	Number assigned to ship or hull.
*1	Apr. 29	C....	C....	Merrill & Stevens Co.	Jacksonville, Fla..	Jacksonville, Fla..	1-12
2	May 1	S....	C....	....do.....	....do.....	....do.....	13-16
3	May 14	W...	C....	G. M. Standifer C. Corp.	Portland, Oreg....	611 NW. National Bank Building, Portland, Oreg.	17-26
4	May 13	S....	C....	Los Angeles S. B. & D. D. Co.	Los Angeles Harbor, Cal.	Post-office box C, San Pedro, Cal.	27.34
*5	May 15	W...	C....	Peninsula S. B. Co.	Portland, Oreg....	Portland, Oreg....	35-38
6	May 18	W...	C....	Sloan Shipyards Corp.	Seattle, Wash.....	Coleman Building, Seattle, Wash.	39-54
7	May 19	W...	H...	Grays Harbor M. S. Corp.	Aberdeen, Wash..	Aberdeen, Wash..	55-58
*8	May 21	W...	H...	Coast Shipbuilding Co.	Portland, Oreg....	504 Concord Building, Portland, Oreg.	59-62
9	May 24	C....	C....	Terry S. B. Co....	Savannah, Ga.....	Savannah Bank & Trust Co., Savannah, Ga.	63-82
*10	May 28	S....	C....	Skinner & Eddy Corp.	Seattle, Wash.....	Smith Building, Seattle, Wash.	83-88
11	June 4	W..	H...	Sanderson & Porter.	Willapa Harbor, Wash.	52 William Street, New York City.	89-98
12	...do.....	W...	H...	Maryland S. B. Co.	Baltimore, Md....	Lexington Building, Baltimore, Md.	99-104
*13	June 5	S....	C...	Seattle Constn. & D. D. Co.	Seattle, Wash.....	Seattle, Wash.....	105-114
14	June 13	W...	H...	Foundation Co....	Newark, N. J.....	Woolworth Building, New York City.	115-124
*15	June 15	W...	H...	Groton Iron Works	Noank, Conn.....	50 Broad Street, York City.	125-136
16	...do.....	W...	H...	Ship Constn. & Trading Co.	Stonington, Conn.	50 Broadway, New York City.	137-138
*17	June 19	W...	H...	Hillyer-Sperring-Dunn Co.	Jacksonville, Fla..	Jacksonville, Fla..	139-142
*18	...do.....	S....	C....	Moore & Scott Iron Works.	Oakland, Cal.....	San Francisco, Cal	143-152
19	June 23	W...	H...	Portland Ship Ceiling Co.	Portland, Me.....	130 Commercial Street, Portland, Me.	153-156
20	...do.....	W...	H...	Universal Shipbldg. Co.	Houston Ship Canal Harris Company, Tex.	25 Broadway, New York City.	157-168
21	...do.....	W...	H...	McBride & Law...	Beaumont, Tex...	Beaumont, Tex...	169-172
22	...do.....	W...	C....	Newcomb Lifeboat Co.	Hampton, Va.....	Hampton, Va.....	173-176
23	June 16	W...	C....	Traylor, S. B. Corp.	Cornwells Heights, Pa.	Allentown, Pa....	177-186
24	June 26	W...	H...	American S. B. Co.	Brunswick, Ga....	11 Broadway, New York City.	187-190
*25	June 28	W...	C....	Lake & Ocean Nav. Co.	Sturgeon Bay, Wis.	Route 1124, 208 South LaSalle Street, Chicago, Ill.	191
*26	June 30	S....	C....	Baltimore D. D. & S. B. Co.	Baltimore, Md....	Baltimore, Md....	192-199
27	...do.....	W...	H...	Tampa Dock Co..	Tampa, Fla.....	Tampa, Fla.....	200-203
28	June 16	W...	H...	Union Bridge & Constn. Co.	Morgan City, La..	903 Sharp Building, Kansas City, Mo.	204-209
29	July 3	W...	H...	Jahnoke S. B. Co..	Chefuncte River, La.	New Orleans, La..	210-215
30	...do.....	S....	C....	Downey S. B. Corp.	Milliken, Richmond Borough, New York City.	New York City...	216-225

[1] Includes $364,500 for ways.

[2] Includes $32,000 for ways.

hulls executed to date, together with summary for all contracts.

Jan. 1, 1917.—Commerce Department Report, 1916.]

Number of ships or hulls.				Tonnage of ships or hulls.				Total cost of ships or hulls.			
Total to date.	Wood.	Steel.	Composite.	Total to date.	Wood.	Steel.	Composite.	Total to date.	Wood.	Steel.	Composite.
12			12	42,000			42,000	$5,712,000			$5,712,000
16		4		66,000		24,000		9,576,000		$3,864,000	
26	10			101,000	35,000			14,576,000	$5,000,000		
34		8		171,400		70,400		25,459,840		10,883,840	
38	4			187,400	16,000			27,459,840	2,000,000		
54	16			243,400	56,000			35,299,840	7,840,000		
58	4			259,400	16,000			36,559,840	1,260,000		
62	4			273,400	14,000			37,759,840	1,200,000		
82			20	343,400			70,000	47,279,840			9,520,000
88		6		396,200		52,800		55,679,840		8,400,000	
98	10			431,200	35,000			58,679,840	3,000,000		
104	6			452,200	21,000			60,779,840	2,100,000		
114		10		527,200		75,000		73,904,840		13,125,000	
124	10			562,200	35,000			77,269,340	[1] 3,364,500		
136	12			604,200	42,000			80,869,340	3,600,000		
138	2			611,200	7,000			81,469,340	600,000		
142	4			625,200	14,000			82,669,340	1,200,000		
152		10		719,200		94,000		97,691,856		15,022,516	
156	4			733,200	14,000			98,891,856	1,200,000		
168	12			775,200	42,000			102,491,856	3,600,000		
172	4			789,200	14,000			103,691,856	1,200,000		
176	4			803,200	14,000			105,162,188	1,470,332		
186	10			838,200	35,000			110,162,188	5,000,000		
190	4			852,200	14,000			111,394,188	[2] 1,232,000		
191	1			855,700	3,500			111,844,188	450,000		
199		8		926,100		70,400		122,967,388		11,123,200	
203	4			940,100	14,000			124,195,388	[3] 1,228,000		
209	6			961,100	21,000			125,995,388	1,800,000		
215	6			982,100	21,000			127,795,388	1,800,000		
225		10		1,057,100		75,000		139,420,388		11,625,000	

[3] Includes $28,000 for ways.

Table showing details regarding each contract for ships or hulls

Contract No.	Date.	Type of construction.	Hull or complete ship.	Company.	Location of works.	Office address.	Number assigned to ship or hull.
*31	July 9	C....	C....	Supple & Ballin...	Portland, Oreg....	Portland, Oreg....	226-233
32	July 11	W...	C....	National S. B. Co..	Orange, Tex.....	120 Broadway, New York City.	234-245
*33	June 9	S....	C....	Sun Shipbuilding Co.	Chester, Pa.....	Chester, Pa.....	246-249
34	June 25	W...	C....	Grant-Smith-Porter-Guthrie Co.	St. Johns, Oreg....	Multnomah, Hotel, Portland, Oreg.	250-261
*35	July 12	W...	H...	Gildersleeve Ship Constn. Co.	Gildersleeve, Conn.	Gildersleeve, Conn.	262-263
36	...do....	W...	H...	Lone Star S. B. Co.	Beaumont, Tex...	111 Broadway, New York City.	264-271
*37	July 14	W...	H...	Kingston S. B. Co.	Rondout Creek, Kingston, N. Y.	Kingston, N. Y...	272-275
38	...do.....	W...	H...	Johnson Shipyards Corp.	Mariners Harbor, New York City.	New York City....	276-278
39	...do.....	W...	H...	Dierks Blodgett S. B. Co.	Pascagoula, Miss.	Care of Dierks Lumber & Coal Co., Kansas City, Mo.	279-284
40	...do.....	W...	C....	Grant-Smith-Porter-Guthrie Co.	Aberdeen, Wash..	Multnomah Hotel, Portland, Oreg.	285-292
41	July 17	W...	H...	Henry Smith & Sons Co.	Baltimore, Md....	7 E. German St., Baltimore, Md.	293-300
42	July 20	(2)	C....	Alabama D. D. & S. B. Co.	Mobile, Ala.....	Mobile, Ala.....	301-302
43	...do.....	W...	H...	Potomac S. B. Co..	Quantico, Va.....	Colorado Building, Washington, D. C.	303-309
44	...do.....	C....	C....	Kelly-Atkinson Constn. Co.	Mobile, Ala.....	Security Building, Chicago, Ill.	310-327
45	July 21	W..	H...	J. M. McCommon.	Ship Channel Houston, Tex.	Houston, Tex.....	328-329
*46	...do....	W...	H...	Hammond Lumber Co.	Humboldt Bay, Cal.	San Francisco, Cal.	330-331
*47	...do....	W...	H...	Alabama D. D. & S. B. Co.	Mobile, Ala.....	Mobile, Ala.....	332-333
48	...do....	S....	C...	Western Pipe & Steel Co.	South San Francisco, Cal.	San Francisco, Cal.	334-341
*49	...do....	W...	H...	Murnan S. B. Corp.	Pinto Island, Mobile, Ala.	836 Commercial Trust Building, Philadelphia, Pa.	342-345
*50	...do....	W...	H...	Geo. A. Gilchrest..	Thomaston, Me..	60 Main Street, Thomaston, Me.	346
51	...do....	W...	H...	Hodge Ship Co. (Inc.).	Moss Point, Miss..	Moss Point, Miss..	347-350
52	...do....	W...	H...	Southern D. D. & S. B. Co.	Orange, Tex.....	Orange, Tex.....	351-355
53	July 23	W...	H...	J. M. Murdock....	Jacksonville, Fla..	Jacksonville, Fla..	356-357
54	July 20	W...	H...	Midland Bridge Co.	Ship Channel, Houston, Tex.	Kansas City, Mo..	358-363
55	Aug. 11	W...	H...	U. S. Maritime Corp.	Brunswick, Ga....	502 Union Savings Bank Building. Washington, D.C.	364-369
56	...do....	W...	H...	North Carolina, B. B. Co.	Morehead City, N. C.	Morehead City, N. C.	370-371
57	...do....	S...	C...	Groton Iron Works	Groton, Conn.....	50 Broad Street, New York City.	372-377
58	Aug. 15	W...	H...	Morey & Thomas.	St. Johns River, Jacksonville Fla.	1212 Chemical Building, St. Louis, Mo.	378-381
59	Aug. 16	W...	H...	Cumberland S. B. Co.	South Portland, Me.	Portland, Me.....	382-390
60	July 26	W...	H...	L. H. Shattuck, (Inc.).	Piscotaqua River, Portsmouth, N. H.	Manchester, N. H.	391-408
61	Aug. 20	S....	C...	Saginaw S. B. Co..	Saginaw, Mich....	Saginaw, Mich....	409-414

[1] This amount does not include the cost of steel which the corporation is to furnish.
[2] Steam Barge.

executed to date, together with summary for all contracts—Continued.

Number of ships or hulls.				Tonnage of ships or hulls.				Total cost of ships or hulls.			
Total to date.	Wood.	Steel.	Composite.	Total to date.	Wood.	Steel.	Composite.	Total to date.	Wood.	Steel.	Composite.
233			8	1,089,100			32,000	$143,820,388			4,400,000
245	12			1,145,500	56,400			151,380,388	$7,560,000		
249		4		1,185,500		40,000		157,064,388		$5,684,000	
261	12			1,227,500	42,000			160,664,388	3,600,000		
263	2			1,234,500	7,000			161,264,388	600,000		
271	8			1,262,500	28,000			163,644,388	2,400,000		
275	4			1,276,500	14,000			164,864,288	1,200,000		
278	3			1,287,000	10,500			165,764,388	900,000		
284	6			1,308,000	21,000			167,504,388	1,740,000		
292	8			1,336,000	28,000			171,504,388	4,000,000		
300	8			1,364,000	28,000			173,904,388	2,400,000		
302		2		1,379,000		15,000		174,995,690		[1] 1,091,302	
309	7			1,403,500	24,500			177,095,690	2,100,000		
327			18	1,466,500			63,000	185,195,690			8,100,000
329	2			1,473,500	7,000			185,795,690	600,000		
331	2			1,480,500	7,000			186,375,690	580,000		
333	2			1,487,500	7,000			186,975,690	600,000		
341		8		1,557,900		70,400		197,799,690		10,824,000	
345	4			1,571,900	14,000			198,939,690	1,140,000		
346	1			1,575,400	3,500			199,239,690	300,000		
350	4			1,589,400	14,000			200,439,690	1,200,000		
355	5			1,606,900	17,500			201,939,690	1,500,000		
357	2			1,613,900	7,000			202,539,690	600,000		
363	6			1,634,900	21,000			204,339,690	1,800,000		
369	6			1,655,900	21,000			206,139,690	1,800,000		
371	2			1,662,900	7,000			206,739,690	600,000		
377		6		1,715,700		52,800		214,923,690		8,184,000	
381	4			1,729,700	14,000			216,123,690	1,200,000		
390	9			1,761,200	31,500			218,823,690	2,700,000		
403	18			1,824,200	63,000			224,403,690	[3] 5,580,000		
414		6		1,845,200		21,000		227,763,690		3,360,000	

[3] This item includes $360,000 for yards, railway approaches, plant, equipment, etc.

Table showing details regarding each contract for ships or hulls

Contract No.	Date.	Type of construction.	Hull or complete ship.	Company.	Location of works.	Office address.	Number assigned to ship or hull.
62	Aug. 20	W..	H...	York River S. B. Corp.	West Point, Va...	West Point, Va...	415–422
*63	...do....	S....	C...	California S. B. Co.	Long Beach, Cal..	Long Beach, Cal..	423–425
*64	Aug. 25	W..	H...	Kruse & Banks S. S. Co.	North Bend, Oreg.	North Bend, Oreg.	426–431
*65	July 23	W...	H...	Fulton S. B. Co...	Head Morman Channel, Wilmington, Cal.	Los Angeles, Cal..	432–435
66	Aug. 16	W...	H...	Freeport S. B. Co.	South Freeport, Me.	Freeport, Me.....	436
67	...do....	W...	H...	Scswurstrom S. B. Co.	Columbia City, Oreg.	San Francisco, Cal.	437–440
*68	...do....	W...	H...	Kelley Spear Co...	Bath, Me.....	Bath, Me.....	441
69	Aug. 7	W...	H...	Meacham & Babcock S. B. Co.	Salmon Bay, Wash.	Seattle, Wash.....	442–443
*70	Aug. 16	W...	H...	Wilson S. B. Co...	Astoria, Oreg.....	Astoria, Oreg.....	444–446
71	July 17	W...	H...	Beaumont S. B. Co.	Beaumont, Tex...	Beaumont, Tex...	447–450
72	Sept. 6	W...	H...	Coos Bay S. B. Co.	Marshfield, Oreg..	Marshfield, Oreg..	451–454
73	Sept. 7	W...	H...	Housatonic S. B. Co. (Inc.).	Housatonic River, Stratford, Conn.	Stratford, Conn...	455–464
74	Aug. 31	W...	H...	Nilson & Keles S. B. Corp.	Seattle, Wash.....	Seattle, Wash.....	465–468
75	Sept. 1	W...	H...	Geo. F. Rodgers & Co.	Astoria, Oreg.....	Astoria, Oreg.....	469–472
*76	Aug. 7	W...	H...	Seaborn Shipyards	Tacoma, Wash....	812 Leary Build- Seattle, Wash.	473–480
*77	July 14	W...	H...	St. Helens S. B. Co.	St. Helens, Oreg..	900 Fife Building, San Francisco, Cal.	481–482
*78	Aug. 14	W...	H...	Babare Brothers..	Tacoma, Wash....	Tacoma, Wash....	483
79	Aug. 24	W...	H...	Ralph J. Chandler.	Wilmington, Los Angeles.	Los Angeles, Cal..	484–485
80	Aug. 2	W...	H...	Sandy Point S. B. Corp.	Sandy Point, Me..	Sandy Point, Me..	486–487
*81	Aug. 31	W...	H...	Benicia S. B. Corp.	Benicia, Cal.....	Mercantile National Bank Building, San Francisco, Cal.	488–489
82	Aug. 2	W...	H...	Wright Shipyards.	Tacoma, Wash....	Tacoma, Wash....	490–491
83	Sept. 13	S....	C....	American Inter. Corp.	Hog Island, near Philadelphia, Pa.	120 Broadway, New York City.	492–541
84	Sept. 8	W...	H...	Feeny & Bemer Co.	Tillamook, Oreg...	Tillamock, Oreg...	542
85	Sept. 20	W...	H...	Tacoma S. B. Co..	Tacoma, Wash....	Tacoma, Wash....	543–546
86	Sept. 14	S....	C....	Submarine Boat Corp.	Newark, N. J.....	5 Nassau Street, New York City.	547–596
87	Sept. 7	S...	C....	Merchant S. B. Corp.	Bristol, Pa.....	165 Broadway, New York City.	597–636
88	Sept. 7	W..	H...	Dantzler S. B. & D. D. Co.	Moss Point, Miss..	Moss Point, Miss..	637–642
89	Sept. 13	W..	H...	Heldenfels Bros...	Near Port Aransas, Tex.	Beeville, Tex.....	643–646
*90	...do....	W..	H...	Hammond Lumber Co.	Eureka, Humbolt Bay, Cal.	San Francisco, Cal	647–648
91	Oct. 29	S....	C....	Newburgh Shipyards (Inc.).	Newburgh, N. Y..	Newburgh, N. Y..	759–762
92	Oct. 18	S....	C....	Los Angeles S. B & D. D. Co.	Los Angeles Harbor, Cal.	Los Angeles, Cal..	763–772
93	...do....	S....	C....	Jahncke S. B. Co. (Inc.).	New Orleans, La..	New Orleans, La..	653–658
94	Oct. 20	S....	C....	Hampton Roads S. B. & D. D. Corp.	Norfolk, Va.....	Norfolk, Va.....	649–652
95	Oct. 15	S....	C....	Federal Shipbuilding Co.	Hackensack River, N. J.	54 Dey Street, New York City.	955–964
*96	Sept. 6	W..	H...	McEachern Ship Co.	Astoria, Oreg.....	Portland, Oreg....	659–668

[1] This item includes $225,000 for improvements and extension to plant.

executed to date, together with summary for all contracts—Continued.

Number of ships or hulls.				Tonnage of ships or hulls.				Total cost of ships or hulls.			
Total to date.	Wood.	Steel.	Composite.	Total to date.	Wood.	Steel.	Composite.	Total to date.	Wood.	Steel.	Composite.
422	8			1,873,200	28,000			$230,159,690	$2,396,000		
425		3		1,891,200		18,000		232,885,010		$2,725,320	
431	6			1,912,200	21,000			234,625,010	1,740,000		
435	4			1,926,200	14,000			235,775,010	1,150,000		
436	1			1,929,700	3,500			236,075,010	300,000		
440	4			1,943,700	14,000			237,195,010	1,120,000		
441	1			1,947,200	3,500			237,495,010	300,000		
443	2			1,954,200	7,000			238,075,010	580,000		
446	3			1,964,700	10,500			238,975,010	900,000		
450	4			1,978,700	14,000			240,175,010	1,200,000		
454	4			1,992,700	14,000			241,295,010	1,120,000		
464	10			2,027,700	35,000			244,295,010	[1] 3,000,000		
468	4			2,041,700	14,000			245,495,010	1,200,000		
472	4			2,055,700	14,000			246,695,010	1,200,000		
480	8			2,083,700	28,000			249,095,010	2,400,000		
482	2			2,090,700	7,000			249,695,010	600,000		
483	1			2,094,200	3,500			249,985,010	290,000		
485	2			2,101,200	7,000			250,565,010	580,000		
487	2			2,108,200	7,000			251,165,010	600,000		
489	2			2,115,200	7,000			251,765,010	600,000		
491	2			2,122,200	7,000			252,365,010	600,000		
541		50		2,497,200		375,000		310,115,010		[2] 57,750,000	
542	1			2,500,700	3,500			310,415,010	300,000		
546	4			2,514,700	14,000			311,615,010	1,200,000		
596		50		2,764,700		250,000		350,990,010		[2] 39,375,000	
636		40		3,124,700		360,000		405,766,330		[2] 54,776,320	
642	6			3,145,700	21,000			407,566,330	1,800,000		
646	4			3,159,700	14,000			408,766,330	1,200,000		
648	2			3,166,700	7,000			409,366,330	600,000		
652		4		3,202,700		36,000		415,543,930		6,177,600	
662		10		3,290,700		88,000		430,679,930		15,136,000	
668		6		3,320,700		30,000		436,629,930		4,950,000	
672		4		3,349,900		29,200		440,447,930		4,818,000	
682		10		3,445,900		96,000		455,947,930		15,500,000	
692	10			3,480,900	35,000			458,747,930	2,800,000		

[2] This item does not include the cost of the erection of plant, ways, etc., the expense of which is to be borne by the owner.

Table showing details regarding each contract for ships or hulls

Contract No.	Date.	Type of construction.	Hull or complete ship.	Company.	Location of works.	Office address.	Number assigned to ship or hull.
83	Oct. 23	S....	C....	American Inter. Corp. (option exercised).	Hog Island, near Philadelphia, Pa.	180 Broadway, New York City.	669-738
97	Oct. 30	S....	C....	Oscar Daniels Co..	Brunswick, Ga....	Woolworth building, New York City.	739-748
98	Nov. 5	S....	C....	Erickson Engr.Co. (Inc.).	Seattle, Wash.....	Hanover Building, New York City.	749-758
99	Nov. 8	S....	C....	Bayles Shipyard (Inc.).	Port Jefferson, L. I., N. Y.	115 Broadway, New York City.	773-776
100	Nov. 7	S....	C....	Patterson - McDonald S. B. Co.	Seattle, Wash.....	Seattle, Wash.....	777-784
86	Nov. 16	S....	C....	Submarine Boat Corp. (option exercised).	Newark, N. J.....	5 Nassau Street, New York City.	785-884
*101 & 104	Nov. 20	S....	C....	American S. B, Co.	Buffalo, N. Y.(1)..	Cleveland, Ohio...	901, 904
*102-3-5-6	...do.....	S....	C....	.....do.....	Chicago, Ill. (2)...	.....do.....	902-3-5-6
*107-114	...do.....	S....	C....	.....do.....	Detroit, Mich.....	.....do.....	907-914
*115-120	...do.....	S....	C....	.....do.....	Cleveland, Ohio...	.....do.....	915-920
*121-124	...do.....	S....	C....	.....do.....	Superior, Wis.....	.....do.....	921-924
*125-132	...do.....	S....	C....	.....do.....	Lorain, Ohio.....	.....do.....	925-932
*133-135	...do.....	S....	C....	.....do.....	Buffalo, N. Y. (1)..	.....do.....	933-935
*136-140	...do.....	S....	C....	.....do.....	Chicago, Ill. (2)...	.....do.....	936-940
141	Nov. 23	S....	C....	Southern S. B. Corp.	Charleston, S. C...	Charleston, S. C...	885-900
142	Nov. 16	S....	C....	Pacific Coast S. B. Co.	Suisun Bay, San Franciso, Cal.	First National Bank Building, San Francisco, Cal.	941-950
143	Nov. 28	W....	C....	Meacham & Babcock S. S. Co.	Seattle, Wash.....	800 Third Avenue, Seattle, Wash.	951-954
144	Dec. 4	S....	C....	Pensacola S.B. Co.	Pensacola, Fla....	155 North Clarke Street, Chicago, Ill.	965-974
145	Dec. 7	S....	C....	Groton Iron Works	Alexandria, Va....	50 Broad Street, New York City.	975-986
146	Dec. 1	S....	C....	The Atlantic Corp.	Portsmouth, N. H	Portsmouth, N. H.	987-996
				Total.....	.....	.....	.....

Old yards	36
New yards	74
Total	110

executed to date, together with summary for all contracts—Continued.

Number of ships or hulls.				Tonnage of ships or hulls.				Total cost of ships or hulls.			
Total to date.	Wood.	Steel.	Composite.	Total to date.	Wood.	Steel.	Composite.	Total to date.	Wood.	Steel.	Composite.
762	.....	70	.....	4,040,900	.....	560,000	.....	$574,247,930	.....	$115,500,000	.....
772	.....	10	.....	4,135,900	.....	95,000	.....	589,637,930	.....	15,390,000	.....
782	.....	10	.....	4,229,900	.....	94,000	.....	605,617,930	.....	15,980,000	.....
786	.....	4	.....	4,249,900	.....	20,000	.....	608,917,930	.....	3,300,000	.....
794	.....	8	.....	4,320.300	.....	70,400	.....	620,885,930	.....	11,968,000	.....
894	.....	100	.....	4,820,300	.....	500,000	.....	696,485,930	.....	75,600,000	.....
896	.....	2	.....	4,827,400	.....	7,100	.....	697,897,680	.....	1,411,750	.....
900	.....	4	.....	4,841,600	.....	14,200	.....	700,721,180	.....	2,823,500	.....
908	.....	8	.....	4,870,000	.....	28,400	.....	706,561,180	.....	5,840,000	.....
914	.....	6	.....	4,891,300	.....	21,300	.....	710,941,180	.....	4,380,000	.....
918	.....	4	.....	4,905,500	.....	14,200	.....	713,861,180	.....	2,920,000	.....
926	.....	8	.....	4,933,900	.....	28,400	.....	719,701,180	.....	5,840,000	.....
929	.....	3	.....	4,944,550	.....	10,650	.....	721,891,180	.....	2,190,000	.....
934	.....	5	.....	4,962,300	.....	17,750	.....	725,541,180	.....	3,650,000	.....
950	.....	16	.....	5,082,300	.....	120,000	.....	744,981,180	.....	19,440,000	.....
960	.....	10	.....	5,176,300	.....	94,000	.....	760,773,180	.....	15,792,000	.....
964	4	.....	.....	5,190,300	14,000	.....	.....	762,993,180	$2,220,000	.....	.....
974	.....	10	.....	5,280,300	.....	90,000	.....	777,573,180	.....	14,580,000	.....
986	.....	12	.....	5,393,100	.....	112,800	.....	795,621,180	.....	18,048,000	.....
996	.....	10	.....	5,481,100	.....	88,000	.....	809,701,180	.....	14,080,000	.....
996	379	559	58	5,481,100	1,344,900	3,929,200	207,000	809,701,180	128,840,832	653,128,348	$27,732,000

Thirty-six contracts are placed in yards having previous Emergency Fleet Corporation contracts.

Number, type, and dead-weight tonnage of vessels under contract or requisitioned by the Emergency Fleet Corporation, segregated as to wood, composite, and steel.

Type of vessels.	Total.		Wood.		Steel.		Composite.	
	Number of vessels.	Dead-weight tonnage.	Number of vessels.	Dead-weight tonnage.	Number of vessels.	Dead-weight tonnage.	Number of vessels.	Dead-weight tonnage.
UNDER CONTRACT.								
Cargo (tons):								
3,500	455	1,594,500	359	1,256,500	46	163,000	50	175,000
4,000	16	64,000	8	32,000			8	32,000
4,700	12	56,400	12	56,400				
5,000	160	800,000			160	800,000		
6,000	7	42,000			7	42,000		
7,500 and under	92	689,200			92	689,200		
8,800	64	563,200			64	563,200		
9,000	54	486,000			54	486,000		
10,000 and under	66	625,800			66	625,800		
Total	926	4,921,100	379	1,344,900	489	3,369,200	58	207,000
Cargo and transports (tons), 8,000	70	560,000			70	560,000		
Grand total	996	5,481,100	379	1,344,900	559	3,929,200	58	207,000
UNDER REQUISITION.								
Collier (tons):								
5,000 and under	3	14,700			3	14,700		
7,500 and under	1	6,800			1	6,800		
8,800 and under	5	43,000			5	43,000		
Total	9	64,500			9	64,500		
Passenger and cargo (tons):								
5,000 and under	7	32,958			7	32,958		
6,000 and under	2	10,600			2	10,600		
Total	9	43,558			9	43,558		
Tanker (tons):								
5,000 and under	2	9,100			2	9,100		
7,500 and under	7	49,300			7	49,300		
8,800 and under	4	33,010			4	33,010		
9,000 and under	9	81,000			9	81,000		
10,000 and under	12	115,400			12	115,400		
12,500 and under	18	192,545			18	192,545		
15,000 and under	6	84,800			6	84,800		
Total	58	565,155			58	565,155		
Cargo (tons):								
3,500 and under	99	321,240			99	321,240		
5,000 and under	37	160,200			37	160,200		
6,000 and under	5	28,000			5	28,000		
7,500 and under	47	335,460			47	335,460		
8,000 and under	2	16,000			2	16,000		
8,800 and under	58	508,200			58	508,200		
9,000 and under	14	126,000			14	126,000		
10,000 and under	25	243,170			25	243,170		
12,500 and under	28	332,450			28	332,450		
15,000 and under	2	28,000			2	28,000		
Total	317	2,098,720			317	2,098,720		
Grand total	393	2,771,933			393	2,771,933		
Grand total requisitioned and constructed	1,389	8,253,033	379	1,344,900	952	6,701,133	58	207,000

Senator NELSON. Were not most of them, as a matter of fact, not in existence at all?

Admiral BOWLES. I think that most of them were not in existence when the contracts were let.

Senator NELSON. So the contract was really, in the first place, to build a shipyard and then, in the next place, to build ships—was not that it?

Admiral BOWLES. Senator, when I submit the contracts that you called for I will endeavor to furnish you an analysis which will show that.

Mr. Chairman, I have three copies of this list.

The CHAIRMAN. Does that give the address of the contractors, as well?

Admiral BOWLES. Yes; it gives the name of the company, the location of the works, and the office address in each case.

Senator NELSON. It does not, however, I suppose—and it was not called for, but it would have been a good plan if it had been there—and describe the number of ships?

Admiral BOWLES. It does give the number of ships and the numbers assigned to it by the corporation and the contract price.

Senator NELSON. And the tonnage?

Admiral BOWLES. And their tonnage.

Senator NELSON. All right; then it is good.

Admiral BOWLES. The second item that you asked for was:

2. The number of ships that have been constructed, if any, and the place where and by whom so built.

Up to December 21 the only ships completed for the Emergency Fleet Corporation are those that were requisitioned, building in private yards, on August 3. I submit the statement showing in the summary there were 49 ships.

Senator NELSON. Requisitioned?

Admiral BOWLES. Requisitioned and completed up to December 21; a total dead-weight tonnage of 3,000,865 tons.

Senator NELSON. Are those in the service now?

Admiral BOWLES. Yes; but they are not all in our service.

Senator NELSON. But they are in some service?

Admiral BOWLES. They are in some service. This statement includes also a detailed list giving the company by whom these ships were built, names of the vessels, the dead-weight tonnage in each case, who the former owners were, and the dates that the vessels were accepted.

Senator NELSON. Let me ask you, for my information, the dead-weight tonnage that you speak of is the freight capacity, is it not?

Admiral BOWLES. Senator, if this is a suitable opportunity, I would like to explain this tonnage business.

Senator NELSON. Yes; I would like to get clear about it, if you have no objection, Mr. Chairman.

The CHAIRMAN. No; certainly.

Admiral BOWLES. Gross tonnage is the ordinary record of the tonnage of merchant vessels and is the internal cubic capacity of the vessel divided by 100; that is, a gross ton is 100 cubic feet measured inside the frames of the space devoted to the carriage of cargo or passengers, or is otherwise inclosed.

Senator NELSON. That is gross tonnage?

Admiral BOWLES. That is gross tonnage.

The CHAIRMAN. That is the ton of 2,240 pounds?

Admiral BOWLES. No; it is simply 100 cubic feet of volume and has nothing to do with weight.

Senator NELSON. It is just so much space for each ton.

The CHAIRMAN. Yes; but so much space per ton, but the ton you are figuring is 2,240 pounds and not 2,000 pounds.

Admiral BOWLES. No, sir; a gross ton is simply 100 cubic feet of space, and has nothing whatever to do with weight.

Senator NELSON. It may be lead, or furniture, or anything; it is simply a matter of space.

Admiral BOWLES. Dead-weight tonnage is the ordinary method of expressing the commercial value of a cargo vessel for purposes of charter or purchase, and it is intended to be a measure of the cargo-carrying capacity. It is arrived at in this way: The displacement of a vessel at any time is her actual weight in tons of 2,240 pounds. The dead-weight tonnage is the difference between the displacement of the vessel when loaded to her Plimsoll-line mark, and the displacement of the vessel when she is light in steaming condition, but with no crew, stores, water, or fuel on board. So that in order to arrive at the carrying capacity in long tons of a vessel you must deduct from the dead-weight tonnage, so-called, the fuel, the weight of water, crew, and stores.

Senator NELSON. And the ballast, too?

Admiral BOWLES. Ballast, if any.

I have prepared this graphic diagram to show you the relation between dead-weight tonnage and gross tonnage of vessels of different sizes and kinds. There is no general rule.

Senator NELSON. I understand the British have a different system of computing tonnage from ours?

Admiral BOWLES. There are a number of systems. There is the the Suez Canal, and there is the Panama Canal, and there is the British law of net registered tonnage, and theAmerican law, which is almost exactly the same——

Senator NELSON. As the British?

Admiral BOWLES. As the British.

If I want to finish the subject of tonnage, I must tell you what the net registered tonnage is.

The CHAIRMAN. I think that difference between our law and the British has to do with the deck.

Admiral BOWLES. Somewhat.

The net registered tonnage is the measure of volume also; it is the gross tonnage, less the space occupied by the engines and boilers, plus 75 per cent, plus the space occupied by the crew, and some other detailed deductions, but it is supposed to be the basis of taxation for port dues and canal dues.

This diagram which I show you [exhibiting diagram to the committee] gives you the varying relations between dead-weight tonnage and gross tonnage. The black part shows by the height of the columns the approximate gross tonnage of vessels of different sizes, and the top line, the full line, which is not hatched in, shows the dead-weight tonnage of the corresponding ships, and you will see that for two types the dead-weight tonnage is more than the gross tonnage. That is because those two types of vessels are substantially

passenger ships; they happen to be the designs of troop ships. The troop ships have a much larger cubic capacity with reference to their carrying capacity, being passenger vessels, than cargo boats do, and that accounts for the fact of this abnormal difference of tonnage.

I hope, Senator, I have made myself plain.

Senator NELSON. We have three classes of tonnage, gross tonnage, dead-weight tonnage, and net registered tonnage?

Admiral BOWLES. Yes, sir.

The CHAIRMAN. The stenographer will put that into the record. Can it go in without the colors?

Admiral BOWLES. Yes, sir; it can be put in without the colors.

(The diagram referred to by Admiral Bowles is printed on page 126 in full.)

Admiral BOWLES (continuing). I will continue with this list of requisitioned vessels.

This statement also shows you a list of vessels which were released from requisition before they were completed.

Senator NELSON. How many of those?

Admiral BOWLES. There were nine vessels.

Senator NELSON. Were they domestic or foreign or both?

Admiral BOWLES. There were three foreign—those that were released.

Senator NELSON. And the others were domestic?

Admiral BOWLES. The others were domestic vessels, and they were in two classes—those that were released.

Senator NELSON. They were steel ships?

Admiral BOWLES. They were steel ships.

Senator NELSON. And what was the total tonnage of the nine?

Admiral BOWLES. The total tonnage of the nine I will have to give you approximately, as I have not the exact figures on this statement, was about 60,000 tons.

Senator NELSON. What was the occasion of releasing them?

Admiral BOWLES. The most of these vessels were released because they were Lake vessels, built for Lake service only, and not of canal size. The others were ore vessels, building for the Bethlehem Steel plant at Sparrows Point, Md., and were of a type that were not adapted to general service and were considered essential for the steel business.

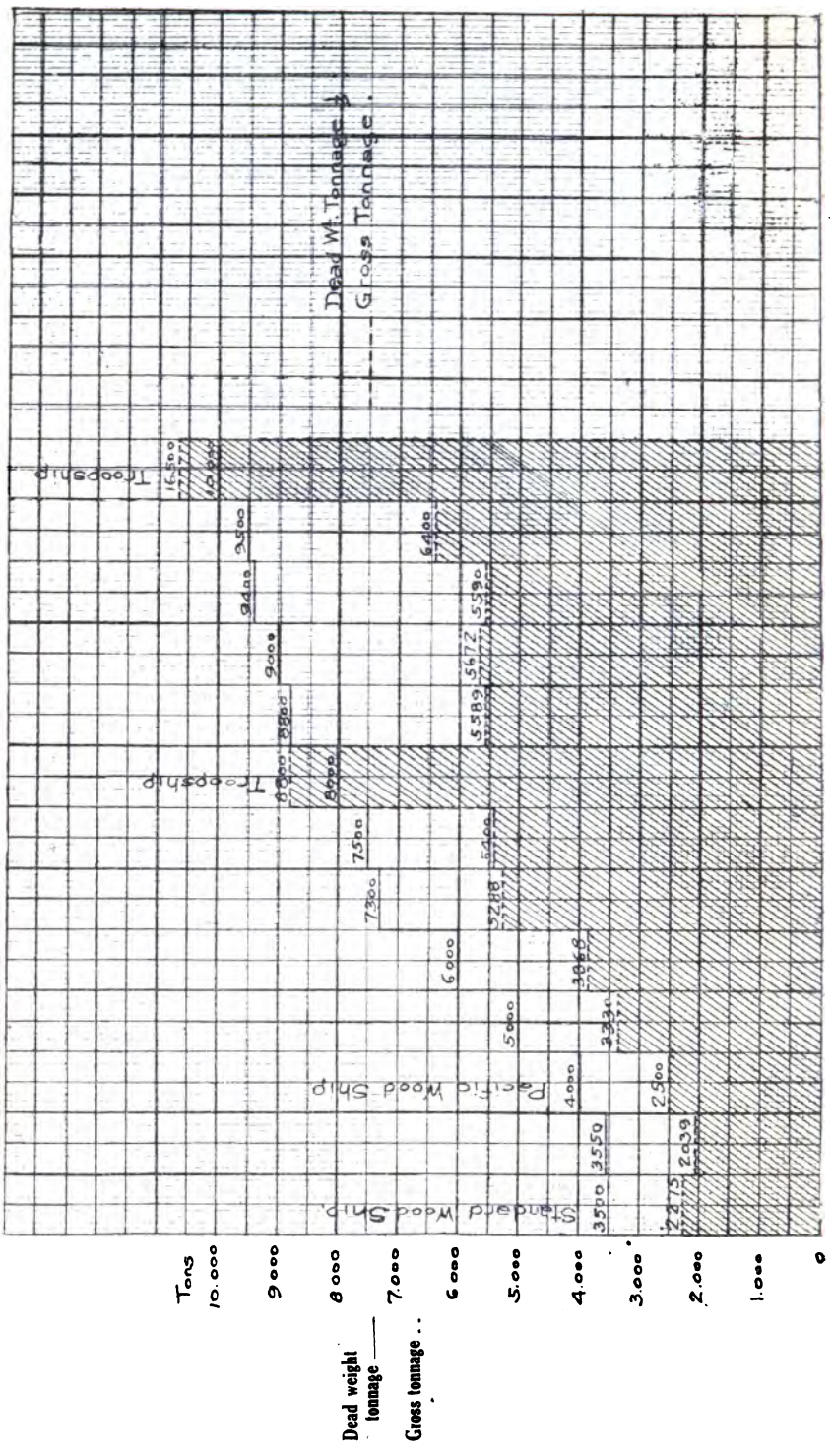
The CHAIRMAN. Let that list be included.

(The list, submitted by Admiral Bowles is here printed in full, as follows:)

Summary.

	Ships.	Total dead-weight tonnage.
Requisitioned vessels completed since date of requisition	43	253,235
Requisitioned vessels released before completion and since completed	6	47,630
Total	49	300,865

EXHIBIT No. 1.—*Diagram showing size and type of vessels and relation of dead weight tonnage to gross tonnage on vessels of various sizes.*



Requisitioned vessels completed and retained by Shipping Board; also those completed and reconveyed to former owners.

Plant.	Hull No.	Name.	Type.	Dead-weight tonnage.	Former owner.	Date accepted.	Date reconveyed.
AMERICAN SHIPBUILDING CO						1917.	
Chicago, Ill	83	War Banner	Cargo	3,100	Cunard	Oct. 31	.....
Do	84	War Hound	do	3,100	do	Nov. 19	.....
Cleveland, Ohio	467	War Penguin	do	3,100	do	Oct. 8	.....
Do	468	War Finch	do	3,100	do	Nov. 17	.....
							1917.
Detroit, Mich	209	War Song	do	4,100	do	Sept. 22	Oct. 2
Do	210	War Path	do	4,100	do	Sept. 27	.....
Do	211	War Beaver	do	3,100	do	Nov. 1	.....
Do	212	War Honour	do	3,100	do	Nov. 14	.....
Do	213	War Fox	do	3,100	do	Nov. 23	.....
Superior, Wis	528	War Chant	do	3,100	do	Sept. 21	.....
Do	529	War Signal	do	3,100	do	Oct. 29	.....
Total vessels	11	Total dead-weight tonnage.	.....	36,100	.....	.....	.....
BALTIMORE DRY DOCK AND SHIPBUILDING CO., BALTIMORE, MD.							
Locust Point	78	Wm. Isom	Tanker	5,000	Sinclair Gulf.	Nov. 12	.....
BETHLEHEM SHIPBUILDING CORPORATION (LTD.), SOUTH BETHLEHEM, PA.							
Fore River	265	F. J. Luckenbach.	Cargo	10,000	E. Luckenbach.	Nov. 28	
Harlan & Hollingsworth	442	W. H. Tilford.	Tanker	8,130	Standard Oil.	Dec. 13	Dec. 18
Sparrows Point, Md	163	Walter D. Munson.	Cargo	5,500	Munson	Sept. 14	Oct. 11
Union Plant, San Francisco, Cal.	134	F. W. Weller	Tanker	14,900	Standard Oil.	Dec. 6	Dec. 16.
Do	140	Wm. Jebson	do	10,475	Wm. Jebson.	Dec. 8	
Total vessels	5						
Total dead-weight tonnage.	.....	.....	.....	49,005			
CHESTER SHIPBUILDING CO., CHESTER, PA.							
Chester, Pa	350	Hisko	Tanker	9,000	H. Oesterwald.	Dec. 6	
GREAT LAKES ENGINEERING WORKS, DETROIT, MICH.							
Ashtabula, Ohio	172	Sidi Marbrouk	Cargo	4,000	Cie de Algerienne.	Oct. 25	
Do	173	Perregaux	do	4,000	do	Nov. 15	
Ecourse, Mich	168	Florence H	do	5,500	do	Oct. 23	
Do	169	SNA4	do	5,500	Cie de Paris.	Dec. 1	
Do	174	War Leader	do	4,000	Cunard	Nov. 12	
Do	175	Fagerfjord	do	4,000	Nilson-Nyquist.	Nov. 22	
Total vessels	6						
Total dead-weight tonnage.	.....	.....	.....	27,000			

Requisitioned vessels completed and retained by Shipping Board; also those completed and reconveyed to former owners—Continued.

Plant.	Hull No.	Name.	Type.	Dead-weight tonnage.	Former owner.	Date accepted.	Date reconveyed.
MANITOWOC SHIPBUILDING CO., MANITOWOC, WIS.							
Manitowoc	80	Ada	Cargo	3,500	Damp Skibsaktieselskabet	1917. Oct. 8	
Do	81	Motor I	do	3,500	K. Salvesen.	Oct. 24	
Do	82	War Castle	do	3,500	Cunard	Nov. 24	
Do	83	War Victor	do	3,500	do	Nov. 17	
Total vessels	4						
Total dead-weight tonnage.				14,000			
M'DOUGAL DULUTH CO., DULUTH, MINN.							
Duluth, Minn	2	Maski	Cargo	3,300	T. Hellesoe.	Nov. 19	
MOORE & SCOTT IRON WORKS, OAKLAND, CAL.							
Oakland, Cal	112	Sagaland	Cargo	7,100	Antieselskapet Vestland.	Dec. 8	
NEWPORT NEWS SHIPBUILDING & DRY DOCK CO., NEWPORT NEWS, VA.							
Newport News, Va	201	O. B. Jennings.	Tanker	14,900	Standard Oil.	1917. Oct. 31	Oct. 31.
Do	204	El Capitan	Cargo	6,200	Southern Pacific.	Sept. 18	Nov. 9.
Do	206	Munindies	do	7,430	Munson S. S.	Dec. 6	
Total vessels	3						
Total dead-weight tonnage.				28,530			
NEW YORK SHIPBUILDING CORPORATION, CAMDEN, N. J.							
Camden, N. J	176	Deepwater	Cargo	12,650	Castner, Curren Bullet Co.	Oct. 10	
SKINNER & EDDY CORPORATION, SEATTLE, WASH.							
Seattle, Wash	6	Jeanette Skinner.	Cargo	8,800	Knut Knutsen.	Sept. 6	
Do	8	Lt. De Missiessy.	do	8,800	Messageries Maritimes.	Sept. 19	Sept. 26
Do	9	Indiana	do	8,800	Mitsui & Co.	Nov. 1	
Total vessels	3						
Total dead-weight tonnage.				26,400			
STANDARD SHIPBUILDING CORPORATION, NEW YORK, N. Y.							
Shooter's Island, N. Y	1	Jupiter	Cargo	7,300	Affreturs Reunis.	Nov. 5	

Requisitioned vessels completed and retained by Shipping Board; also those completed and reconveyed to former owners—Continued.

Fleet.	Hull No.	Name.	Type.	Dead-weight tonnage.	Former owner.	Date accepted.	Date reconveyed.
TEXAS STEAMSHIP CO., BATH, ME.							
						1917.	
Bath, Me	1	Maine	Cargo	9,530	Texas Co.	Oct. 9	
Do	2	Rhode Island	do	9,530	do	Dec. 1	
TOLEDO SHIPBUILDING CO., TOLEDO, OHIO.							
Toledo, Ohio	140	War Shell	Cargo	2,930	Cunard	Oct. 4	
Do	141	War Bayonet	do	2,930	do	Nov. 6	
Do	142	War Rifle	do	2,930	do	Nov. 16	
Total vessels	3						
Total dead weight tonnage.				8,790			
Total	43						
Total dead weight tonnage.				253,235			

Requisitioned vessels released before completion and since completed.

Yard.	Hull No.	Name.	Type.	Dead-weight tonnage.	Former owner.	Reconveyed.
AMERICAN SHIPBUILDING CO., CLEVELAND, OHIO.						
Chicago plant	81	Choctaw	Cargo	3,300	Atlantic, Gulf & West Indies Steamship Co.	Aug. 31, 1917
BETHLEHEM STEEL CORPORATION (LTD.), SOUTH BETHLEHEM, PA.						
Sparrows Point, Md., plant	160	Cubore	Ore carrier.	11,300	Ore Steamship Co.	Aug. 20, 1917
Do	161	Feltore	do	11,300	do	Oct. 29, 1917
Union plant, San Francisco, Cal.	142	War Sword	Cargo	10,000	Cunard Steamship Co.	Aug. 30, 1917
TOLEDO SHIPBUILDING CO., TOLEDO, OHIO.						
Toledo, Ohio	139	Limoges	Cargo	2,930	Cie de Orleans.	Sept. 11, 1917
NORTHWEST STEEL CO., PORTLAND, OREG.						
Portland plant	2	War Viceroy	Cargo	8,800	Cunard Steamship Co.	Oct. 23, 1917
Total vessels	6					
Total dead-weight tonnage.				47,630		

TABULATION No. 44.—*List of requisitioned vessels, by shipyards.*

[Dec. 12, 1917.]

Yard.	Hull No.	Name.	Former owner.	Dead-weight tons.	Contract price.	Vessels on cost-plus basis at estimated cost.	Type.	Dead-weight tons reported by D. O.
Albina Engine & Machine Works, Portland, Oreg.	1	Margit	Damp	3,300	$462,000.00		Cargo	
	2	Erling	do	3,300	452,100.00		do	
	3		Skjold	3,800	Cost plus.	$526,300.00	do	
	4		Carl	3,800	Cost plus.	526,300.00	do	
	5		Gorm	3,800	Cost plus.	526,300.00	do	
	6		Viking	3,800	Cost plus.	526,300.00	do	
Total	6			21,800	914,100.00 2,105,200.00	2,105,200.00		
Aggregate of contract and estimated cost					3,019,300.00			
American Shipbuilding Co., Cleveland, Ohio	81	Choctaw	Atlantic Gulf	3,300	515,000.00		Cargo	
	83	War Banner	Cunard	3,100	585,800.00		do	
	84	War Hound	do	3,100	585,800.00		do	
	85	War Duty	do	3,100	581,000.00		do	
	86	War Laurel	do	3,100	628,000.00		do	
	209	War Song	do	4,100	721,140.00		do	
	210	War Path	do	4,100	721,140.00		do	
	211	War Beaver	do	3,100	581,000.00		do	
	212	War Honour	do	3,100	581,000.00		do	
	213	War Fox	do	3,100	581,000.00		do	
	214	War Martin	do	3,100	581,000.00		do	
	215	War Ferret	do	3,100	581,000.00		do	
	216	War Hope	do	3,100	581,000.00		do	
	217	War Palm	do	3,100	581,000.00		do	
	218	War Swift	do	3,100	581,000.00		do	
	219	War Thrush	do	3,100	628,000.00		do	
	220	War Lynx	do	3,100	628,000.00		do	
	467	War Penguin	do	3,100	581,000.00		do	
	468	War Finch	do	3,100	581,000.00		do	
	469	War Raven	do	3,100	581,000.00		do	
	470	War Oak	do	3,100	581,000.00		do	
	528	War Chant	do	3,100	585,800.00		do	
	529	War Signal	do	3,100	585,800.00		do	
	530	War Valour	do	3,100	581,000.00		do	
	531	War Otter	do	3,100	628,000.00		do	
	725	War Wren	do	3,100	581,000.00		do	
	726	War Birch	do	3,100	581,000.00		do	
	727	War Briar	do	3,100	581,000.00		do	

	728	War Maple	do	3,100	581,000.00		do	
	729	War Gull	do	3,100	581,000.00		do	
	730	War Branch	do	3,100	581,000.00		do	
	731	War Fortune	do	3,100	581,000.00		do	
	732	War Vigil	do	3,100	628,000.00		do	
	733	War Poplar	do	3,100	628,000.00		do	
	721		Producers	12,500	1,855,750.00		do	
	722		do	12,500	1,855,750.00		do	
	723		do	12,500	1,855,750.00		do	
	724		Standard Oil	8,500	1,512,000.00		Tanker	
Total	38			153,600	27,348,730.00			
Ames Shipbuilding & Dry Dock Co., Seattle, Wash.	1	War Brigade	Cunard	8,800	1,232,000.00		Cargo	
	2	War Apollo	do	8,800	1,232,000.00		do	
	3	War Cupid	do	8,800	1,232,000.00		do	
	4	Montrolite	Teagle	9,000	1,215,000.00		Tanker	
	5	L. J. Drake	Standard Oil	9,000	1,215,000.00		do	
	6		Cie. Generale	8,800	1,046,000.00		Cargo	
	7	War Diana	Cunard	8,800	1,214,400.00		do	
	8		Cie. Generale	8,800	1,046,000.00		do	
	9	War Dido	Cunard	8,800	1,232,000.00		do	
	10		Ames	8,800	[1] 1,550,000.00		do	
	11	War Hector	Cunard	8,500	1,475,000.00		do	
	12	War Helen	do	8,500	1,475,000.00		do	
	13	War Juno	do	8,500	1,475,000.00		do	
Total	13			113,900	16,639,400.00			
Baltimore Dry Dock & Shipbuilding Co, Baltimore, Md.	78	Wm. Ison	Sinclair Gulf	5,000	455,400.00		Tanker	
	81	Gen. De Cattlenau	Cie Generale	6,200	744,000.00		Cargo	
	82	War Whale	Cunard	6,200	744,000.00		do	
	83		Cie Generale	6,200	1,085,000.00		do	
	84		do	6,200	1,085,000.00		do	
	86		Garland	6,200	1,196,600.00		do	
	87		Cie Generale	6,200	1,196,600.00		do	
	88	War Neptune	Cunard	6,200	1,054,000.00		do	
	89	War Venus	do	6,200	1,054,000.00		do	
	91		Baltimore	6,200	[2] 1,209,000.00		do	
	92		do	6,200	[2] 1,209,000.00		do	
Total	11			67,000	11,032,600.00			
Chester Shipbuilding Co., Chester, Pa	340	Sudbury	Shawmut	7,500	585,000.00		Cargo	
	341	Springleaf	Cunard	9,000	810,000.00		Tanker	
	342	Summerleaf	do	9,000	868,500.00		do	
	343	Autumnleaf	do	9,000	868,500.00		do	
	344	Winterleaf	do	9,000	900,000.00		do	
	345		Nordgreen	9,000	900,000.00		do	
	346	War Gun	Cunard	8,800	880,000.00		Cargo	

[1] This vessel is building, builder's account. Corporation offered price. Corporation has accepted offer.

[2] Fixed price.

TABULATION NO. 44.—*List of requisitioned vessels, by shipyards*—Continued.

Yard.	Hull No.	Name.	Former owner.	Dead-weight tons.	Contract price.	Vessels on cost-plus basis at estimated cost.	Type.	Dead-weight tons reported by D. O.
Chester Shipbuilding Co., Chester, Pa. (Contd.)	347	Salisbury	Shawmut	8,800	$880,000.00		Cargo	
	348	Westfield	do	8,800	1,012,000.00		do	
	349		Hamilton	9,000	1,575,000.00		do	
	350	Hisko	Osterwald	9,000	1,300,000.00		Tanker	
	351		Federal	8,800	1,012,000.00		Cargo	
	352		Cie Generale	8,000	1,038,400.00		do	
	353		do	8,000	1,038,400.00		do	
	356		Christopherson	9,500	1,178,000.00		do	
	357		Hamilton	9,000	1,575,000.00		do	
	358		do	9,000	1,575,000.00		do	
	359		do	9,000	1,575,000.00		do	
	360		do	9,000	1,575,000.00		do	
	361		do	9,000	1,575,000.00		do	
	362		do	9,000	1,575,000.00		do	
	363		do	9,000	1,575,000.00		do	
	365		do	9,000	1,575,000.00		do	
	366		do	9,000	1,575,000.00		do	
	367		do	9,000	1,575,000.00		do	
	368		do	9,000	1,575,000.00		do	
	369		do	9,000	1,575,000.00		do	
	370		do	9,000	1,575,000.00		do	
Total	28			248,200	35,320,800.00			
Columbia River Shipbuilding Corporation, Portland, Oreg.	1	War Sirdar	Cunnard	8,800	1,086,800.00		Cargo	
	2	Santiam	Gilbert	8,800	1,086,800.00		do	
	3	War Agate	Cunard	8,800	1,086,800.00		do	
	4	War Diamond	do	8,800	1,086,800.00		do	
	5	War Bullet	do	8,800	1,094,720.00		do	
	6	War Arrow	do	8,800	1,094,720.00		do	
	7	War Dagger	do	8,800	1,144,000.00		do	
	8	Nivelle	Cie Generale	8,800	1,408,000.00		do	
	9	War Spear	Cunard	8,800	1,144,000.00		do	
	10	Poincaire	Cie Generale	8,800	1,408,000.00		do	
Total	10			88,000	11,640,640.00			
Craig Shipbuilding Co., Long Beach, Cal	124	Silverado	Pacific	3,000	445,000.00		Cargo	
	125	Eldorado	Western	3,000	445,000.00		do	
Total	2			6,000	890,000.00			

Cramp & Sons Engine Building Co., Philadelphia Pa.	445		Cramp	9,400	Cost plus.	$1,932,358.00	Cargo	9,500
	456		do	9,400	Cost plus.	1,932,358.00	do	9,500
	434	Oriente	Atlantic Gulf	4,500	[1] 1,350,000.00		Passenger and cargo.	4,400
	435	Orizaba	do	4,500	[1] 1,350,000.00		do	4,400
	442	Santa Ana	Grace	4,986	921,000.00		do	4,986
	443	Santa Lucia	do	4,986	921,000.00		do	4,986
	444	Santa Olivia	do	9,500	1,350,000.00		Cargo	9,500
	446	Santa Teresa	do	4,986	1,358,000.00		Passenger and cargo.	4,986
	447	Santa Malta	do	9,500	1,581,000.00		Cargo	9,500
Total	9			61,758	8,831,000.00 3,864,716.00	3,864,716		61,758
Aggregate of contract and estimated cost					12,695,716.00			
J. F. Duthie & Co., Seattle, Wash.	8	War Leopard	Cunard	8,800	1,043,685.00		Cargo	
	9	Hallbjorg	Kleppe	8,800	1,002,668.00		do	
	10	War General	Cunard	8,800	961,648.00		do	
	11	War Topaz	do	8,800	966,190.00		do	
	12	War Emerald	do	8,800	966,189.00		do	
	14	War Sun	do	8,800	1,134,000.00		do	
	15	War Moon	do	8,800	1,098,240.00		do	
	16	Viviani	Cie. Generale	8,800	1,672,000.00		do	
	17	War Fort	Cunard	8,800	1,474,000.00		do	
	18	War Disk	do	8,800	1,144,000.00		do	
	19	War Ruby	do	8,800	1,144,000.00		do	
	20	Petain	Cie. Generale	8,800	1,672,000.00		do	
Total	12			105,600	14,278,620.00			
Fore River Shipbuilding Co., Quincy, Mass.	264	K. I. Luckenbach	E. F. Luckenbach	10,000	877,000.00		Cargo	
	265	F. J. Luckenbach	do	10,000	877,000.00		do	
	267	Katrina Luckenbach.	do	10,000	1,100,000.00		do	
	268	Geo. W. Barnes	Petroleum	9,100	1,100,000.00		Tanker	
	269	W. L. Steed	do	9,100	1,100,000.00		do	
	272	War Crest	Cunard	8,500	1,360,000.00		Cargo	
	273	War Crown	do	8,500	1,360,000.00		do	
	297		E. F. Luckenbach	14,000	Cost plus.	1,669,220.00	do	
	298		do	14,000	Cost plus.	1,669,220.00	do	
Total	9			93,200	7,774,000.00 3,338,440.00	3,338,440.00		
Aggregate of contract and estimated cost					11,112,440.00			

[1] These ships have been changed to cost-plus basis.

TABULATION No. 44.—*List of requisitioned vessels, by shipyards*—Continued.

Yard.	Hull No.	Name.	Former owner.	Dead-weight tons.	Contract price.	Vessels on cost-plus basis at estimated cost.	Type.	Dead-weight tons reported by D. O.
Globe Shipbuilding Co., Superior, Wis	101		Christian Hannevig.	3,500	$455,000.00		Cargo	
	102		do	3,500	455,000.00		do	
	103		Smith	3,500	620,000.00		do	
	104		do	3,500	620,000.00		do	
Total	4			14,000	2,150,000.00			
Great Lakes Engineering Works, Detroit, Mich	168	Florence H	Cie de Algerienne	5,500	470,000.00		Cargo	
	169	S. N. A. 4	Cie de Paris	5,500	470,000.00		do	
	170		Pittsburgh	13,000	538,000.00		do	
	172	Sidi Mabrouk	Cie de Algerienne	4,000	330,000.00		do	
	173	Perregaux	do	4,000	330,000.00		do	
	174	War Leader	Cunard	4,000	330,000.00		do	
	175	Fagerfjord	Nilson & Nyquist	4,000	330,000.00		do	
	176	Mascott	Peterson	3,400	455,000.00		do	
	177	War Goblin	Cunard	3,300	646,000.00		do	
	178	War Elfin	do	3,300	646,000.00		do	
	179	War Imp	do	3,300	646,000.00		do	
	180	War Bugle	do	3,300	646,000.00		do	
	181	War Drum	do	3,300	646,000.00		do	
	182	War Music	do	3,300	646,000.00		do	
	183	War Satyr	do	3,300	646,000.00		do	
	184	War Sphinx	do	3,300	646,000.00		do	
	185	War Trumpet	do	3,300	646,000.00		do	
	186	War Cymbal	do	3,300	646,000.00		do	
	187	War Naiad	do	3,300	646,000.00		do	
	188	War Fairy	do	3,300	646,000.00		do	
	189	War Cornet	do	3,300	646,000.00		do	
	190	War Flute	do	3,300	646,000.00		do	
	191	War Sprite	do	3,300	646,000.00		do	
	192	War Gnome	do	3,300	646,000.00		do	
	193	War Harp	do	3,300	646,000.00		do	
	194		Clinchfield	3,300	875,000.00		do	
	195		do	3,300	875,000.00		do	
	196		do	3,300	875,000.00		do	
	197		do	3,300	875,000.00		do	
	198		do	3,300	875,000.00		do	
	199		do	3,300	875,000.00		do	
Total	31			119,300	19,485,500.00			

Hanlon Dry Dock & Shipbuilding Co., Oakland, Cal.	78		Smith-Lind	5,500	Cost plus	$734,525.00	Cargo	
	79		do	5,500	do	734,525.00	do	
Total	2			11,000		1,469,050.00		
Harlan & Hollingsworth Corporation, Wilmington, Del.	442	W. H. Tilford	Standard Oil	8,130	670.000.00		Tanker	
	445	J. A. Bostwick	do	11.720	1,000,000 00		do	
	446	O. T. Waring	do	8.130	707,500.00		do	
	449	H. B. Everest	Vacuum Oil	8,130	760 800 00		do	
	450		Ocean	4,500	945,000.00		Passenger and cargo.	
	451		do	4,500	935.000.00		do	
	453	Saetia	United	4,500	613.193.00		Cargo	
	454	Guara	do	4,500	613 193 00		do	
	455	Biram	do	4,500	613,193.00		do	
	456	Pilon	do	4.500	648,193.00		do	
	457		do	3,500	839.250.00		do	
	458		do	3,500	839.250 00		do	
Total	12			70.110	9,184,572.00			
Maryland Plant Co.	160	Cubore	Ore	11,300	Cost plus.	1,886,422.00	Ore carrier	
Bethlehem Steel, Sparrows Point, Md.	161	Feltore	do	11,300	Cost plus.	1,886,422.00	do	
	162	Bethore	do	17,060	Cost plus.	2,847,996.40	do	
	163	W. D. Munson	Munson	5,500	730.000.00		Cargo	
	165	Santore	Ore	11,300	Cost plus.	1,886,422.00	Ore carrier	
	166	Firmore	do	11,300	Cost plus.	1,886,422.00	do	
	167	War Dragon	Cunard	7,500	922,500.00		Cargo	
	168	Mangore	Ore	6,000	Cost plus.	1,001,640.00	Ore carrier	
	169	War Mercury	Cunard	7,400	1,332,000.00		Cargo	
	170	War Shark	do	7,400	1,332,000.00		do	
	172	Ampetco	American Pet	11,350	1,735,895.00		Tanker	
	173	War Dolphin	Cunard	7,500	1,290,000 00		Cargo	
	174	War Saturn	do	10,100	1,909,020 00		do	
	175	War Jupiter	do	10,100	1,909,020.00		do	
	176		Bethlehem	7,400	Cost plus.	1,235,356.00	do	
Total	15			142,510	11,160,435.00 12,620,680.40	12,630,680.40		
Aggregate of contract and estimated cost					23,791,115.40			
Manitowoc Shipbuilding Co., Manitowoc, Wis.	80	Ada	Dampskibsaktieselskabit. Ada.	3,500	240,000.00		Cargo	
	81	Motor 1	K. Salvesen	3,500	240,000.00		do	
	82	War Castle	Cunard	3,500	280,000.00		do	
	83	War Victor	do	3,500	280,000.00		do	
	86	War Sentry	do	3,500	300,000.00		do	
	87		Christoffer Hannevig.	3,500	280,000.00		do	
	88		do	3,500	280.000.00		do	
	90	War Comet	Cunard	3,400	645,000.00		do	
	91	War Mist	do	3,400	645,000.00		do	

TABULATION No. 44.—*List of requisitioned vessels, by shipyards*—Continued.

Yard.	Hull No.	Name.	Former owner.	Dead-weight tons.	Contract price.	Vessels on cost-plus basis at estimated cost.	Type.	Dead-weight tons reported by D. O.
Manitowoc Shipbuilding Co., Manitowoc, Wis. (Con.)	92		Nilson & Nyquist	3,500	$400,000.00		Cargo	
	93	War Cloud	Cunard	3,400	645,000.00		do	
	94	War Meteor	do	3,400	645,000.00		do	
	95	War Sky	do	3,400	645,000.00		do	
	96		Manitowoc	3,400	Cost plus.	$645,000.00	do	
Total	14			48,400	5,525,000.00 645,000.00	645,000.00		
Aggregate of contract and estimated cost					6,170,000.00			
McDougall-Duluth Shipbuilding Co., Duluth, Minn.	2	Maski	Helesoe	3,300	450,000.00		Cargo	
	3	War Centaur	Cunard	3,300	525,000.00		do	
	4		Cie Generale	3,100	635,500.00		do	
	5		do	3,100	635,500.00		do	
	6		do	3,100	635,500.00		do	
	7		do	3,100	635,500.00		do	
	8		do	3,100	635,500.00		do	
	9		McDougal-D	3,100	Cost plus.	582,459.00	do	
	10		do	3,100	Cost plus.	582,459.00	do	
Total	9			28,300	4,152,500.00 1,164,918.00	1,164,918.00		
Aggregate of contract and estimated cost					5,317,418.00			
Merrill-Stevens Co	1	Hull	Continental Transportation Co.	6,500	1,137,500.00		Cargo	
Sam'l L. Moore & Sons, Elizabeth, N. J	115		United	3,500	850,000.00		Cargo	
	116		do	3,500	850,000.00		do	
	117		Gillespie	4,800	Cost plus.	1,165,680.00	do	
	3			11,800	1,700,000.00 1,165,680.00	1,165,680.00		
Aggregate of contract and estimated cost					2,865,680.00			
Moore & Scott Iron Works, Oakland, Cal	112	Sagaland	Aktieselskapet-vestland.	7,100	834,250.00		Cargo	
	113	War Bay	Cunard	9,400	1,128,000.00		do	
	114		Nordgreen [1]	9,400	1,151,500.00		do	

	115	Passatt	Thorpe & Weiss	9,400	1,151,500.00		do	
	116	War Beacon	Cunard	9,400	1,480,500.00		do	
	117	War Breeze	do	9,400	1,588,600.00		do	
	118	War Coast	do	9,400	1,588,600.00		do	
Total	7			63,500	8,922,950.00			
Newport News Shipbuilding & Dry Dock Co., Newport News, Va.	201	O. B. Jennings	Standard Oil	14,900	960,000.00		Tanker	
	204	El Capitan	Southern	6,200	580,000.00		Cargo	
	205	J. C. Donnell	Atl. Refining	14,800	1,120,000.00		Tanker	
	206	Munindies	Munson	7,430	595,000.00		Cargo	
	207	Munaires	do	7,430	670,000.00		do	
	208	H. M. Flagler	Standard Oil	11,375	1,135,500.00		Tanker	
	209	F. D. Asche	do	11,375	1,135,500.00		do	
	212		Atlantic Gulf	7,200	1,200,000.00		Cargo	
	213		do	7,200	1,200,000.00		do	
Total	9			87,910	8,596,000.00			
New Jersey Shipbuilding Co., Gloucester, N. J.	201		Manss S. S. Co.	5,000	875,000.00		Cargo	
	202		do	5,000	875,000.00		do	
	203		do	5,000	875,000.00		do	
	204		do	5,000	875,000.00		do	
	205		do	5,000	875,000.00		do	
	206		do	5,000	875,000.00		do	
	207		do	5,000	875,000.00		do	
	208		do	5,000	875,000.00		do	
	209		Christo er Hannevig.	5,000	[2] 875,000.00		do	
	210		do	5,000	[2] 875,000.00		do	
	211		do	5,000	[2] 875,000.00		do	
	212		do	5,000	[2] 875,000.00		do	
Total	12			60,000	10,500,000.00			
New York Shipbuilding & Dry Dock Co., Camden, N. J.	174	Sylvan Arrow	Standard Trans	12,650	875,000.00		Tanker	
	175	Broad Arrow	do	12,650	875,000.00		do	
	176	Deepwater	Castner Curran Bullett (Inc).	12,650	698,900.00		Collier	
	184	Sewall's Point	Darrow Mann	8,600	515,000.00		do	
	191		do	8,600	Cost plus.	582,048.00	do	
	192		do	8,600	Cost plus.	582,048.00	do	
	195		do	8,600	Cost plus.	582,048.00	do	
	182	Fairmont	Coastwise	8,600	507,500.00		do	
	183		Pocahontas	4,900	369,000.00		do	
	189	Gulfland	Gulf Refining	7,300	Cost plus.	494,064.00	Tanker	
	196	Gulf Queen	do	8,620	Cost plus.	583,401.60	do	
	193		Carpenter O'Brien	8,100	595,000.00		Cargo	

[1] Letter of Oct. 15, 1917, gives B. Stolt Nielsen as owner.

[2] Estimated.

TABULATION No. 44.—*List of requisitioned vessels, by shipyards*—Continued.

Yard.	Hull No.	Name.	Former owner.	Dead-weight tons.	Contract price.	Vessels on cost-plus basis at estimated cost.	Type.	Dead-weight tons reported by D. O.
New York Shipbuilding & Dry Dock Co., Camden, N. J. (continued).	190		Petroleum	12,300	$1,010,000.00		Tanker	
	197	Santa Lucia	Grace	5,300	Cost plus.	$358,704.00	Passenger and cargo.	
	198	Santa Elisa	do	5,300	Cost plus.	358,704.00	do	
	206	Santa Tecla	do	3,800	Cost plus.	257,184.00	Cargo	
	202		Atl. Trans	11,925	Cost plus.	807,084.00	Cargo	
	203		do	11,925	Cost plus.	807,084.00	do	
	207		do	3,800	Cost plus.	257,184.00	do	
	204		New York	4,900	Cost plus.	331,632.00	Collier	
	205		do	4,900	Cost plus.	331,632.00	do	
	208		do	3,800	Cost plus.	257,184.00	Cargo	
	209		do	6,800	Cost plus.	460,224.00	Collier	
Total	23			184,620	5,445,400.00 7,050,225.60	7,050,225.60		
Aggregate of contract and estimated cost					12,495,625.60			
Pennsylvania Shipbuilding Co., Gloucester, N. J.	1	Desdemona	Cunard	7,000	930,000.00		Tanker	7,000
	2	John M. Connelly	J. M. Connelly S. S. Co.	7,000	930,000.00		do	7,000
	3	Lucretia	Cunard	7,000	930,000.00		do	7,000
	4	Charmian	do	7,000	930,000.00		do	7,000
	5	Iras	do	7,000	930,000.00		do	7,000
	6	Calpurnia	do	7,000	930,000.00		do	7,000
	7	War Serpent	do	12,500	1,562,500.00		Cargo	12,500
	8	War Horse	do	12,500	1,562,500.00		do	12,500
	9	War Priest	do	12,500	1,562,500.00		do	12,500
	10	War March	do	12,500	1,562,500.00		do	12,500
	11		Bulk Oil	12,500	1,562,500.00		do	12,500
	12		do	12,500	1,562,500.00		do	12,500
	13		do	7,500	937,500.00		do	7,500
	14		do	7,500	937,500.00		do	7,500
	15		Pennsylvania	12,500	Cost plus.	1,598,375.00	do	12,500
	16		do	12,500	Cost plus.	1,598,375.00	do	12,500
	17		do	12,500	Cost plus.	1,598,375.00	do	12,500
	18		do	12,500	Cost plus.	1,598,375.00	do	12,500
	19		do	12,500	Cost plus.	1,598,375.00	do	12,500
Total	19			194,500	16,880,000.00 7,991,875.00	7,991,875.00		194,500

Aggregate of contract and estimated cost					24,871,875.00			
Pusey & Jones Co., Wilmington, Del.	1001	War Nurse	Cunard	4,000	590,000.00		Cargo	
	1002	War Heroine	do	4,000	590,000.00		do	
	1003	War Metal	do	4,000	570,000.00		do	
	1004	War Platoon	do	4,000	570,000.00		do	
	1005	War Compass	do	4,000	560,000.00		do	
	1006	War Crater	do	4,000	560,000.00		do	
	1007	War Dart	do	4,350	609,000.00		do	
	1008	War Shield	do	4,350	609,000.00		do	
	1009		Bulk Oil	4,350	826,500.00		do	
	1010		do	4,350	804,750.00		do	
	1011		do	4,350	804,750.00		do	
	1012		do	4,350	783,000.00		do	
	1013		do	4,350	783,000.00		do	
	1014		do	4,350	761,250.00		do	
Total	14			58,800	9,421,250.00			
Seattle Construction & Dry Dock Co., Seattle, Wash.	91	Walter A. Luckenbach.	Luckenbach	10,500	945,000.00		Cargo	
	92		A. S. Reder Odfjell.	7,500	700,000.00		do	
	93		Cie. Generale	7,500	877,500.00		do	
	94		Stray	7,500	866,250.00		do	
	95		do	7,500	843,750.00		do	
	96		Barber	7,500	937,500.00		do	
	97	War Artist	Cunard	7,500	1,125,000.00		do	
	98	War Herald	do	7,500	1,125,000.00		do	
	99	War Bard	do	7,500	1,125,000.00		do	
	101	War Comrade	do	7,500	1,125,000.00		do	
	102	War Guide	do	7,500	1,125,000.00		do	
	103	War Regent	do	7,500	1,125,000.00		do	
Total	12			93,000	11,920,000.00			
Skinner & Eddy Corporation, Seattle, Wash.	12	Jas. G. Eddy	Nielson	8,800	1,000,000.00		Cargo	
	16	David Rogers	do	8,800	1,000,000.00		do	
	17	Eliz. Gibbs	do	8,800	1,100,000.00		do	
	6	J. Skinner	Knutson	8,800	1,188,000.00		do	
	10	War Flame	Cunard	8,800	1,064,800.00		do	
	11	Trontolite	Teagle	9,000	1,350,000.00		Tanker	
	8	Lt. De Missiessy	Messagerias Maritime.	8,800	2,500,000.00		Cargo	
	9	Indiana	Mitsui	8,800	2,500,000.00		do	
Total	8			70,600	11,702,800.00			
Standard Shipbuilding Co., New York, N. Y.	1	Jupiter	Les Affreteurs Reunis.	7,300	1,000,000.00		Cargo	7,217
	2	Stian	Salvensen	7,300	965,000.00		do	7,300
	3	War Unit	Cunard	7,300	925,000.00		do	7,300

TABULATION No. 44.—*List of requisitioned vessels, by shipyards*—Continued.

Yard.	Hull No.	Name.	Former owner.	Dead-weight tons.	Contract price.	Vessels on cost-plus basis at estimated cost.	Type.	Dead-weight tons reported by D. O.
Standard Shipbuilding Co., New York, N. Y. (Cth.)	4	War Speed	Cunard	7,300	$915,000.00		Cargo	7,300
	5		Cie. Generale	7,300	830,000.00		do	7,300
	6		Russian	7,300	875,000.00		do	7,300
	7		do	7,300	1,076,750.00		do	7,300
	8	War Pride	Cunard	7,300	1,065,800.00		do	7,300
	9		do	7,300	1,095,000.00		do	7,300
	10		Consorzio Veneziana.	7,300	1,095,000.00		do	7,300
	11		do	7,300	1,095,000.00		do	7,300
	12		De Luca	7,300	1,277,500.00		do	7,300
	13		do	7,300	1,277,500.00		do	7,300
Total	13			94,900	13,552,550.00			94,817
Staten Island Shipbuilding Co., Port Richmond, N. Y.	689	War Plane	Cunard	3,500	324,000.00		Cargo	3,500
	692	War Post	do	3,500	500,000.00		do	3,500
	693	War Toiler	do	3,500	500,000.00		do	3,500
	694	War Trader	do	3,500	595,000.00		do	3,500
	695	War Tramp	do	3,500	595,000.00		do	3,500
Total	5			17,500	2,514,000.00			17,500
Sun Shipbuilding Co., Chester, Pa	1	Chester Sun	Sun	10,300	1,100,000.00		Tanker	
	2	Sabine Sun	do	10,300	1,100,000.00		do	
	3	War Indian	Cunard	10,000	1,550,000.00		Cargo	
	4	War Trojan	do	10,000	1,550,000.00		do	
	5	M. E. Luckenbach	Luckenbach	10,000	1,390,000.00		do	
	6	Jacob Luckenbach	do	10,000	1,390,000.00		do	
	7	Merrimac	Shawmut	10,000	1,250,000.00		do	
	8	Deerwood	do	10,000	1,250,000.00		do	
	9		Luckenbach	10,000	1,400,000.00		do	
	10		do	10,000	1,400,000.00		do	
	13		Standard Oil	10,150	1,850,000.00		Tanker	
	14		do	10,150	1,850,000.00		do	
	17		Sun	10,000	Cost plus.	$1,412,700.00	do	
	18		do	10,000	Cost plus.	1,412,700.00	do	
	19		do	10,100	Cost plus.	1,426,827.00	do	
	20		do	10,100	Cost plus.	1,426,827.00	do	
Total	16			161,100	17,080,000.00 5,679,054.00	5,679,054.00		

Aggregate of contract and estimated cost					22,759,054.00			
Tampa Shipbuilding Co., Tampa, Fla	31	War Wonder	Cunard	3,500	612,500.00		Cargo	3,400
	32	War Work	do	3,500	612,500.00		do	3,400
Total	2			7,000	1,225,000.00			6,800
Texas Shipbuilding Co., Bath, Me	1	Maine	Texas	9,530	Cost plus	1,430,453.00	Cargo	
	2	Rhode Island	do	9,530	do	1,430,453.00	do	
	3	Massachusetts	do	9,900	do	1,496,497.00	do	
	4	New Jersey	do	9,900	do	1,496,497.00	do	
	10		do	9,500	do	1,425,950.00	Tanker	
	11		do	9,500	do	1,425,950.00	do	
	12		do	9,500	do	1,425,950.00	do	
	13		do	9,500	do	1,425,050.00	do	
	14		do	4,100	do	615,410.00	do	
	21		do	9,800	do	1,470,980.00	do	
	22		do	9,800	do	1,470,980.00	do	
	23		do	9,800	do	1,470,980.00	do	
	24		do	9,800	do	1,470,980.00	do	
Total	13			120,300		18,057,030.00		
Toledo Shipbuilding Co., Toledo, Ohio	139	Limoges	Cie. de Orleans	2,930	280,000.00		Cargo	
	140	War Shell	Cunard	2,930	280,000.00		do	
	141	War Bayonet	do	2,930	280,000.00		do	
	142	War Rifle	do	2,930	Cost plus.	412,800.00	do	
	143	War Flag	do	2,930	Cost plus.	412,800.00	do	
	144	War Daisy	do	2,930	Cost plus.	412,800.00	do	
	145	War Lilly	do	2,930	Cost plus.	412,800.00	do	
	146	War Pansy	do	2,930	Cost plus.	412,800.00	do	
	147		Lewis	2,930	612,000.00		do	
	148		do	2,930	612,000.00		do	
Total	10			29,300	2,064,000.00 2,064,000.00	2,064,000.00		
Aggregate of contract and estimated cost					4,128,000.00			
Union Iron Works, San Francisco, Cal	134	Fred. W. Weller	Standard Oil	14,900	1,340,000.00		Tanker	
	135	A. C. Bedford	do	14,900	1,340,000.00		do	
	150		Union Iron	11,500	Cost plus.	1,674,170.00	Cargo	
	140	Wilhelm Jebsen	Wilhelm Jebsen	10,475	1,035,000.00		Tanker	
	151		Union Iron	11,500	Cost plus.	1,674,170.00	Cargo	
	143	J. E. O'Neil	Atlantic Refining	10,475	1,350,000.00		Tanker	
	144	Herbert L. Platt	do	10,475	1,350,000.00		do	
	145	S. M. Spaulding	Petroleum	10,475	1,350,000.00		do	
	153		Union Iron	11,500	Cost plus.	1,674,170.00	Cargo	
	146	P. H. Harwood	Petroleum	10,475	1,350,000.00		Tanker	
	170		Union Iron	11,500	Cost plus.	1,674,170.00	Cargo	
	147	W. S. Rheem	Standard Oil	10,475	2,500,000.00		Tanker	
	148		Atlantic Refining	10,475	1,500,000.00		do	

TABULATION No. 44.—*List of requisitioned vessels, by shipyards*—Continued.

Yard.	Hull No.	Name.	Former owner.	Dead-weight tons.	Contract price.	Vessels on cost-plus basis at estimated cost.	Type.	Dead-weight tons reported by D. O.
Union Iron Works, San Francisco, Cal. (continued)	149		Atlantic Refining	10,475	$1,500,000.00		Tanker	
	154	Romulus	A. O. Lindvig	6,000	775,000.00		Cargo	
	162	War Harbor	Cunard	11,800	1,860,000.00		do	
	163	War Haven	do	11,800	1,860,000.00		do	
	164	War Ocean	do	11,800	1,950,000.00		do	
	165	War Rock	do	11,800	1,950,000.00		do	
	166	War Sea	do	11,800	1,950,000.00		do	
	167	War Cape	do	11,800	1,950,000.00		do	
	168	War Surf	do	11,800	1,950,000.00		do	
	169	War Wave	do	11,800	1,950,000.00		do	
	142	War Sword	do	10,000	1,800,000.00		do	
Total	24			270,000	32,610,000.00	$6,696,680.00		
					6,696,680.00			
Aggregate of contract and estimated cost					39,306,680.00			
Willimette Iron Works, Portland, Oreg	5	Landaas	Erland	8,800	1,100,000.00		Cargo	
	6	War Ally	Cunard	8,800	1,012,000.00		do	
	4	War Archer	do	8,800	920,000.00		do	
	3	Hallgrim	Kleppe	8,800	915,000.00		do	
	2	War Viceroy	Cunard	8,800	875,000.00		do	
	7	War Pearl	do	8,800	1,012,000.00		do	
	8	Umpqua	Stray	8,800	1,144,000.00		do	
	9	Joffre	Cie. Generale	8,800	1,672,000.00		do	
	10	Marne	do	8,800	1,672,000.00		do	
	11	Verdun	do	8,800	1,672,000.00		do	
	12	Pershing	do	8,800	1,672,000.00		do	
	13	Aisne	do	8,800	1,650,000.00		do	
	14	Argonne	do	8,800	1,650,000.00		do	
	15	Somme	do	8,800	1,650,000.00		do	
	16	Meuse	do	8,800	1,650,000.00		do	
Total	15			132,000	20,266,000.00			

SUMMARY.

	Number.	Dead-weight tonnage.	Total cost.
Vessels with contract price	364	2,505,128	$361,865,347
Vessels on cost-plus basis	67	550,880	[1] 73,922,439
Total	431	3,056,008	435,787,896

[1] Estimated.

NOTE.—Corrected dead-weight tonnage taken from data card Form 118.

The third item is [reading]—

3. The number of ships now under construction and where and by whom the same are being built, as well as the proportion of work done on each vessel up to the present time.

Senator NELSON. I understood yesterday, Admiral, that you had constructed one ship—that is, I understood that one ship, outside of these commandeered ships, had been constructed by the Emergency Fleet Corporation?

Admiral BOWLES. At the present time, Senator, there are four ships contracted for by the Fleet Corporation in the water—two wooden ships on the Pacific coast and two steel ships, each of 8,800 tons. One of those steel ships is promised to go into commission the day after Christmas.

Senator NELSON. So that you have really got four ships?

Admiral BOWLES. In the water.

Senator NELSON. In the water.

Admiral BOWLES. I am going to show you the condition of those that are on shore.

Senator NELSON. All right; that is what we want.

Admiral BOWLES. As to the number of ships that are under contract, here is a statement showing net tonnage and type of dead-weight tonnage of vessels under contract or requisitioned by the Emergency Fleet Corporation, segregated as to wood, composite, and steel, and I will read just the totals.

Senator NELSON. Yes; read the summary.

Admiral BOWLES. The grand total of the number of vessels is 1,389, of a total dead-weight tonnage of 8,253,033 tons. Of those, 379 are wooden vessels, of a total dead-weight tonnage of 1,344,900 tons; of the steel vessels, those under contract with the Fleet Corporation number 559, of a total dead-weight tonnage of 3,929,200 tons; of those requisitioned vessels still uncompleted there are 393, of a total dead-weight tonnage of 2,771,933. Composite vessels under contract with the Emergency Fleet Corporation, there are 58 vessels, with a dead-weight tonnage of 207,000 tons.

The CHAIRMAN. The number of vessels then under contract with the Emergency Fleet Corporation and their tonnage amounts to how much?

Admiral BOWLES. Nine hundred and ninety-six vessels, of 5,481,100 tons.

Senator JONES. How would we convert that into gross tonnage, or the tonnage that is given to us, when we are told by the press of the sinking of ships by submarines?

Admiral BOWLES. Nobody knows what you are told.

Senator JONES. I know, but what we see in the papers; they refer to so many tons. As I understand it, that is the English way of reckoning tonnage.

Admiral BOWLES. I do not know what those tons are, and I have never been told.

Senator JONES. It is stated here the other day——

Senator NELSON (interposing). The way the dispatches read, they are evidently copied from some marine register.

Admiral BOWLES. In all probability they are gross tons. I could not translate that into gross tons without going through a calcula-

tion based on this table I have already given you and have it at all accurate.

Senator JONES. I understood yesterday we would get this reduced approximately to gross tons by dividing it by 1.65.

Admiral BOWLES. I have shown you that that will not do as an average. If you want me to convert that into gross tons, I will do so.

Senator JONES. No; I do not. I just thought that was the case, providing 1.65 would give it approximately.

Admiral BOWLES. No.

Senator HARDING. Admiral, let me ask you, is it not supposed that the German reports of sinkings are dead-weight tons, while the English are the gross tons?

Admiral BOWLES. I can not answer, sir; I don't know.

Senator NELSON. I find this, Senator, that occasionally they have referred to a ship, and then the telegram says there are two ships by that name in the register, and sometimes they say "We can not find such a ship in the register." That would indicate that when a ship is sunk they turn to this Lloyd's register, I suppose they call it there, and there they have the name of the ship, and there is the tonnage. Now whether that is dead-weight or registered tonnage I can not tell you, but it is evidently taken from Lloyd's list.

The CHAIRMAN. Do you know what Lloyd's rule is about that, Admiral, as to the tonnage of ships?

Admiral BOWLES. They get both the gross and the net register tonnage in the register book.

Senator JONES. But they do not give the dead-weight tonnage?

Admiral BOWLES. I am not sure. I think they do, for certain classes of vessels.

You have asked us to show you the state of progress on each vessel. These are our regular sheets that we keep for each contract. [Exhibiting diagram to the committee.] These sheets show the number of the hull on our record, the name of the builder, the location of the yard, the amount of the contract, and this diagram represents by its length on a scale of months the time that was provided by the contract for the completion of that ship, and the red line indicates the time the contract provided that the ship was to be delivered. The black part shows the portion of the hull that has been completed for each ship, and it also shows whether the ship is ahead or behind her contract date. These sheets contain every contract, and the lists here show the delivery date promised, the estimated, and there [indicating] is a column for the actual. It also shows the promised date of laying the keel and the actual date; the promised launching date and the actual date, and the percentage of completion at the date of this report. These are prepared by us twice each month.

Senator NELSON. Now, Admiral, it is difficult for us to go through that.

Admiral BOWLES. Yes; it is difficult for you to go through that, and so I have prepared something else for you.

Senator NELSON. What I would like to know—and that comes to a practical question—is how many of these ships, for instance, can

you get out in January, how many in February, how many in March, and so on.

Admiral BOWLES. Senator, after we get through answering the questions that you have asked I am going to ask you to clear this room, and then I will give you all those facts.

Senator NELSON. All right; thank you.

Admiral BOWLES. Here is a graphic diagram, which is printed opposite page 229 of this hearing, that represents the progress of all the vessels under construction, and it also shows you some very interesting things [exhibiting diagram]. This circle [indicating], for instance, represents by its size and tonnage of composite vessels, and the hatched part shows the proportion of those vessels completed.

Senator HARDING. These are not confidential?

Admiral BOWLES. No, sir; I think it would be a very good thing to give those out. I hope you will agree with me when I get through.

This circle [indicating] next shows the tonnage of a wooden vessel and the proportion that we estimate complete on December 1.

Senator NELSON. That is, this shows it?

Admiral BOWLES. Yes, sir; the hatched part shows the portion that we estimated completed. Of course, this is not the number of vessels completed; it is the completed work on the whole program. That is the way we must look at it.

The next circle [indicating No. 3]. represented the tonnage on requisitioned vessels building in private yards, and the hatched part shows the proportion of the vessels now in the yards completed on December 1. The next circle shows the tonnage of steel vessels contracted for by the Fleet Corporation, and the hatched part the proportion of the work completed.

This circle [indicating] represents the whole program—the large circle—of the Fleet Corporation, taking everything together, and the hatched part shows the estimated portion completed at this time.

Now, then, this small circle——

The CHAIRMAN. Does not that very nearly give the information that you thought ought not to go out?

Senator NELSON. Oh, no.

The CHAIRMAN. It shows how much is completed?

Admiral BOWLES. No; the other—I can explain to you in a minute—is a military thing and this is not.

The CHAIRMAN. It is different, but it seems to me that that is rather confidential.

Admiral BOWLES. This small circle [indicating], entitled "The average shipbuilding of the United States," is the average of the United States for 15 years in the production of merchant vessels.

This large circle here is 15 times in area of the little one, and you can see that it does not materially differ in size from the program of the Fleet Corporation, taken altogether.

[After a pause.] Oh, I see; this, perhaps, should be considered confidential. I will ask the members of the committee to return those diagrams to me.

This diagram shows the enormous expansion in shipbuilding which is expected of this country, in comparison with what we have ever done before, and the necessity for the creation of new shipyards.

In order to perhaps visualize the stage of completion of each contract, I have made on this diagram a graphic statement of the con-

dition of the work on each contract showing these spaces representing the progress of the Fleet Corporation ships and requisitioned vessels and on this side the condition of progress in the wooden ships [exhibiting diagram to the committee].

Senator NELSON. You can leave that with us?

Admiral BOWLES. Yes, sir. The fourth question that you asked the Shipping Board was [reading]:

4. Copies of all shipbuilding contracts entered into in order that the committee can ascertain the terms of the same.

Senator NELSON. Admiral, ought not these contracts to be treated as confidential—I mean, for the use of the committee?

Admiral BOWLES. I think they ought to be treated for the use of the committee.

Senator NELSON. And not printed. We can examine them.

Admiral BOWLES. I am having an analysis of these contracts—as to their character—prepared; but it is not finished; but I will submit it, Mr. Chairman, with your permission.

The CHAIRMAN. I think that would be all right. We can put that in the record.

Admiral BOWLES. I can tell you this, that Gen. Goethals executed during his time 54 contracts, 40 for wooden vessels and 4 for composite and 10 for steel. He committed the corporation to 33 additional contracts, which were afterwards executed, but not in the form in which he left them.

Senator NELSON. Were they for steel ships?

Admiral BOWLES. I do not know; they were mostly for wooden vessels, I think.

In addition to those 33, he started negotiations on 8 contracts, those negotiations being completed by Admiral Capps.

The total number of these contracts is 146; and perhaps you would like to have me explain to you the conditions under which the vessels are building in these yards, constructed by the Fleet Corporation through agents?

Senator NELSON. Yes.

Admiral BOWLES. Take the American International Corporation——

Senator HARDING. Ought these contracts to be executed, Admiral?

Admiral BOWLES. I think so.

Senator HARDING. I move that we go into executive session.

Senator NELSON. Are these contracts copies or are they the original contracts?

Senator HARDING. I move that we go into executive session.

The CHAIRMAN. Before we do that, may I ask the admiral one or two questions with regard to the list that was furnished us on yesterday? The average price of the steel ship, for instance, complete, is about $160 a ton?

Admiral BOWLES. For what ships?

The CHAIRMAN. For the steel ships. There is a difference. For instance, here is one American International Corporation contract for 50 ships at $154, and then the same corporation for 70 ships at $206.25. What is the occasion for that?

Admiral BOWLES. The ships are of quite different type. The first one is plain cargo, 7,500 tons dead weight; the second one is a 15-knot, 8,000 tons troopship, a much more expensive ship.

The CHAIRMAN. The American Shipbuilding Co. has 6, I notice, at $198.84 apiece, and 34 at $205.63.

Admiral BOWLES. The 34 ships contain an amortization of plant made necessary for the construction of those ships by next season.

The CHAIRMAN. And the 34 involve speed also?

Admiral BOWLES. Involve speed of construction, but not any speed of the ship; they are 10-knot cargo boats.

The CHAIRMAN. The 34?

Admiral BOWLES. Yes, sir.

The CHAIRMAN. And that price is $205.63. It seems to be higher than the average price.

Admiral BOWLES. Decidedly.

The CHAIRMAN. Do you know for what reason?

Admiral BOWLES. I can not say.

The CHAIRMAN. Then there is one with Meacham & Babcock Steam Boiler Co., wooden, and their price on four ships is $158.57, whereas the average price seems to be on wood $139.

Admiral BOWLES. There must be some difference in the terms of that contract. I could not tell you from memory.

The CHAIRMAN. There is one of Newcomb Lifeboat Co. on 4 ships at $105.02, and then follows 12 ships with Grant-Smith-Porter-Guthrie Co., at $85.71. That seems to be quite a change.

Admiral BOWLES. I ought to explain, Senator, that I did not fix these prices. The differences, however, are largely explainable by the difference in the terms of the contract. The Grant-Smith-Porter-Guthrie Co., for instance, are constructing a shipyard at the expense of the United States, and the price that is given in that table probably has no relation whatever to the total cost of the ships, but merely fixes some limit on the actual cost of the hull to be built in the shipyard when it is finished.

The CHAIRMAN. Where is that yard?

Admiral BOWLES. The Grant-Smith-Porter-Guthrie Co. is a yard on the Pacific coast in the neighborhood of Portland—between Portland and Seattle.

The CHAIRMAN. Then the Alabama Dry Dock and Shipbuilding Co., two ships at $72.75, whereas the average price seems to be on those ships about $84.87. Can you give any explanation as to that?

Admiral BOWLES. No; I could not. I could look up one, but I do not know it now.

Senator JONES. That will probably appear when you furnish the synopsis of these contracts.

Admiral BOWLES. The synopsis I was just passing to was of a different character, showing the different types of contracts.

The CHAIRMAN. May I ask this explanation in regard to the statement: The X indicates contracts let on the cost per dead-weight ton basis, and the star indicates contracts let on the cost-plus basis. What do you mean by that?

Admiral BOWLES. Why, if the contract is let on the basis of the cost being determined in accordance with the act of Congress and then a profit allowed, it is called a "cost-plus" contract.

The CHAIRMAN. What kind of a contract is usually allowed?

Admiral BOWLES. Well, we have been avoiding contracts of that type altogether. The Navy Department has established a rule of cost

and 10 per cent, and where we have resorted to it that has been our rule.

The CHAIRMAN. And the contract made on cost per dead-weight ton basis—what is that contract?

Admiral BOWLES. That simply means that the measure of cost is based upon the actual measurement of dead-weight tons when the vessel is finished; that is, it is not a lump sum for a specific ship; the total value is arrived at by the measurement of the actual tonnage. Of course, I do not want to have my answer in regard to cost and 10 per cent taken to refer to these agency contracts, in which the profit allowed is materially less.

The CHAIRMAN. This money, for instance, for the construction of the ways, that eventually comes back from the contract, does it?

Admiral BOWLES. We have a great variety of contracts, Senator, and in many contracts let before Admiral Capps's time we got no money back.

The CHAIRMAN. Who owns the ways?

Admiral BOWLES. In some cases the corporation owns the improvements; in some cases it has an option to purchase the whole.

You have asked us what ships are being built in private yards for other than Government account, and by whom and where. I must explain to you that we have no record of vessels begun prior to August 3 under 2,500 tons dead-weight. Our inquiry at the time of the requisitioning related only to steel vessels over 2,500 tons dead-weight, so that there might have been at that time wooden vessels of any size building and steel vessels of less than that that we took no account of. And no general order forbidding the construction of vessels has ever been issued by the Fleet Corporation, but, as a matter of practice, it has been necessary to obtain the permission of the Shipping Board to build anything, because we have practically taken up the distribution of all shipbuilding materials. That has been necessary in order to fulfill our program.

Senator NELSON. Then I suppose another thing has been, they wanted to escape from requisition, too?

Admiral BOWLES. In some cases they did, but in some cases the vessels are of types that would not have been requisitioned, but they have come to us for permission because they could not get a windlass or an anchor chain or anchor or even lumber without our permission. So we can only show you the list of permits that have been issued, and we can not inform you conclusively as to all the vessels that may be building in private yards which are not subject to our requisition and are below our size.

Senator NELSON. Have you the number of permits there?

Admiral BOWLES. Here is a list of permits that have been issued by the Shipping Board.

Senator NELSON. There is no objection to putting that in the record, is there?

Admiral BOWLES. I see none.

Senator NELSON. It contains nothing of a confidential nature?

Admiral BOWLES. Nothing.

The CHAIRMAN. That may go in the record.

Admiral BOWLES. We have a list also of vessels of which we have had accidental knowledge that are building in private yards, and I

will hand you that, but I can give you no assurance that it is complete, giving all ships that may be under construction.

Senator NELSON. Let it go in, anyway, Mr. Chairman.

The CHAIRMAN. Yes; in connection with that statement.

Admiral BOWLES. That finishes what you have asked us for.

(The two lists referred to above are here printed in full, as follows:)

Permits granted to build vessels for private or foreign ownership.

Request from—	Date.	To build for—	Number of vessels.	Type.	Deadweight tonnage.	Price per deadweight ton. Proposed.	Price per deadweight ton. Allowed.	Date allowed.	Remarks.
	1917.							1917.	
Kiernan & Kern	Sept. 8	Japanese interests	8	Wood steamships	3,500 or 4,000	$144.00	$144.00	Sept. 20	
Willamette Shipbuilding Co.	Sept. 20	British interests	8	Comp. Supple & Ballin	4,500	.....	138.00	Sept. 21	
Cox & Stevens	Sept. 15	French interests	5	Wood auxiliary schooners	2,600-3,500	150.00	150.00	...do.....	
Jno. H. Mathis Co	Sept. 13	Philadelphia & Reading R. R.	2	Wood car floats (feet)	250	.....	.....	Sept. 22	
C. C. Daniels Tank Shipbuilding Co.	Aug. 29	Standard Oil Co	2	Steel tank ships	11,500	175.00	175.00	...do.....	Nov. 13 contract turned down by Standard Oil Co.
Mississippi Shipbuilding Co.	Sept. 26	French interests	6	Wood auxiliary schooners	2,000	135.00	135.00	Sept. 26	
Do	...do.....	Greek interests	1	.....do	1,000	135.00	135.00	...do.....	
Do	Oct. 1	L. P. Italiano	6	Wood auxiliary schooners, semi-Diesel engine.	2,000	135.00	135.00	Oct. 3	
American Shipbuilding Co.	Oct. 2	Norwegian interests	6	Steel	3,550	250.00	230.00	...do.....	Nov. 2, district officer informed contract failed to go through.
Mississippi Shipbuilding Co.	...do.....	Lloyds Italiano	3	Schooners	1,500	135.00	135.00	Oct. 5	
Eastern Shore Shipbuilding Co.	Oct. 3	Johnson Literage Co	1	Schooner (sail)	2,250	80.00	80.00	Oct. 8	
Sawyer Shipyard	Oct. 6	French Government	30	Patrol boats, 2 motors, 300 H. P., 91 feet C.	40	8.00	82,000.00	Oct. 9	
Beaumont Shipbuilding & Dry Dock Co.	Oct. 11	Private, Kirley Lumber Co.	4	Wood schooners (2) Wood schooners (2)	2,200 1,100	150.00	150.00	Oct. 12	Price allowed if equipped with auxiliary power.
American Shipbuilding Co.	Oct. 16	French Government	4	Wood, semi-Diesel engine	3,500	150.00	142.00	Oct. 18	
Pacific Shipbuilding Co.	...do.....	.....do	4	Wood	3,500	150.00	142.00	...do.....	
Meacham & Babcock	...do.....	.....do	4	Wood, motor, 700 H. P.	3,500	150.00	142.00	...do.....	
Crowninshield Shipbuilding Co.	...do.....	Rogers & Webb, Boston	2	Schooners, 231 [1]	1,800	145.00	145.00	...do.....	
Brunswick Shipbuilding Co.	Oct. 18	Private	1	Sailing vessel	650	203.00	203.00	Oct. 23	
Pensacola Maritime Corporation	Oct. 13	Foreign	1	4-masted schooner, motor	1,500	145.00	145.00	...do.....	
Do	...do.....	.....do	1	.....do	1,200	190.00	190.00	...do.....	
Do	...do.....	.....do	1	4-masted schooner, No. 4	2,200	160.00	135.00	...do.....	
Eastern Shore Shipbuilding Co.	Oct. 23	French	2	Cargo—motor driven	3,000	150.00	150.00	Oct. 24	
			2	Schooners	2,250	100.00	100.00	...do....	
Pensacola Maritime Corporation.	Oct. 13	Foreign	1	Schooner, 4-masted, motor	1,100	190.00	190.00	...do....	
Do	...do....	.....do	1	Schooner, 4-masted, motor, No. 3.	2,200	160.00	135.00	...do....	
Do	...do....	.....do	1	Schooners, 4-masted, motor, No. 5.	2,200	160.00	135.00	...do....	

Permits granted to build vessels for private or foreign ownership—Continued.

Request from—	Date.	To build for—	Number of vessels.	Type.	Dead-weight tonnage.	Price per dead-weight ton. Proposed.	Price per dead-weight ton. Allowed.	Date allowed.	Remarks.
Pensacola Maritme Corporation—(Continued).	1917. Oct. 13	Foreign	1	Schooner, 4-masted, motor	1,200	$166.00	$145.00	1917. Oct. 24	Dec. 12, Southern Dry Dock & Shipbuilding Co., Orange, Tex., now ask sell this vessel for $185,000; recommended.—G. M.
Fernandina Shipbuilding & Dry Dock Co.	Oct. 4	French	6	Cargo vessels	3,500	145.00	145.00	...do....	
Savannah Engineering & Construction Co.	Oct. 24	Norwegian	6	Baldhead rig auxiliary cargo schooners.	2,000	87.50	87.50	Oct. 25	Dec. 13, granted permission to transfer permit to Savannah Co.
The Foundation Co.	Oct. 11	French Government	20	Steel	4,000	175.00	150.00	Nov. 16	
Newport News Shipbuilding & Dry Dock Co.	Oct. 27	Owners	1	Steamship Argonne, repaid.	4,334			Oct. 29	
Liberty Shipbuilding Co.	Oct. 29	French	12	Wood, steamship, sails, adapted for power.	2,400	90.00	90.00	Oct. 30	
Bagdad Shipbuilding Co.	Oct. 26	Builder	4	Schooner, auxiliary, 4-masted (gross)	800	145.00	145.00	Oct. 31	
Pensacola Maritime Corporation	Oct. 24	Hoodless Shipbuilding Co., for foreign interests.	1	Schooner, motor, 3-masted, baldheaded, wood.	810	140.00	140.00	...do....	
Do	...do....	....do	1	....do	810	150.00	150.00	Nov. 1	
Do	...do....	....do	1,2,3	....do	1,750	145.00	145.00	Nov. 2	
Do	...do....	....do	1	....do	700	150.00	150.00	...do....	
Do	...do....	....do	1	....do	810	140.00	140.00	Oct. 31	
Do	...do....	....do	1	....do	700	135.00	135.00	Nov. 2	
Do	...do....	....do	1	....do	700	135.00	135.00	...do....	
Do	Nov. 1	By Gulf Shipbuilding Co.							Nov. 10, held up pending decision on policy

Total	420,464
Less refusals	44,100
Total	376,364

Power vessels under construction under 2,500 tons.

Builder.	Class.	Tonnage.	Time of completion.	Owners.
Pacific American Fisheries, South Bellingham.	Steamer	2,200	May, 1918	Owner's account.
Sloan Shipyards Corporation, Olympia.	Gas screw	2,400		Clinchfield Navigation Co.
Do	do	2,400	May, 1918	Do.
Do	do	2,400	do	Do.
Do	do	2,400	do	Do.
Supple-Ballin Shipbuilding Corporation, Portland.	Steamer	2,500		Builder's account.
Do	do	2,500		Do.
Kiernan & Kern Shipbuilding Co., Portland.[1]	do	1,450 2,500 17,500	Winter of 1918	Do.
Rolph Shipbuilding Co., Eureka.	do	1,600	Not yet started	Do.
Do	do	1,600	do	Do.
Do	do	1,600	do	Do.
National Shipbuilding Co., Seattle.	do	750	Winter of 1918	Wakefield Co.
Matthews Shipbuilding Co., Hoquiam, Wash.	Gas screw	1,150	February, 1918	Hart Wood Lumber Co.
Do	do	65	March, 1918	F. K. Wood Lumber Co.
Do	Point loma gas screw.	1,[illegible]	July, 1918	Hart Wood Lumber Co.
Clooney Construction & Towing Co., Westlake, La.	Steamer	1,300	December, 1918	Gulf Export & Transportation Co.
Olympia Shipbuilding Co., Olympia.	Auxiliary schooner	2,300	Soon	Norwegians.
Do	do	2,300	Spring of 1915	Do.
Do	do	2,300	do	Do.
Pacific American Fisheries, South Bellingham.	do	2,500	January, 1918	Owner's account.
Peninsula Shipbuilding Co., Portland.	Eris, auxiliary schooner.	1,600	Now	Builder's account.
Do	Gamma, auxiliary schooner.	1,600		Do.
Do	No. 5, auxiliary schooner.	1,600		Do.
Puget Sound Bridge Dredge Co., Seattle.	Auxiliary schooner	1,600	December, 1917	French Republic.
Do	do	1,600	January, 1918	Do.
Do	do	1,600	February, 1918	Do.
Do	do	1,600	March, 1918	Do.
Do	do	1,600	April, 1918	Do.
Do	do	1,900	May, 1918	Builder's account
Do	do	1,900	June, 1918	Do.
St. Helens Shipbuilding Co., St. Helens.	do	2,000		C. R. McCormack.
Supple-Ballin Shipbuilding Corporation, Portland.	do	2,500		Gaston, Wms. Wigmore.
Do	do	2,500		Do.
Chas. E. Fulton, San Pedro	do	1,800		J. R. Hanify Co.
Hammond Lumber Co., Eureka.	do	950		Builder's account.
Do	do	950		Do.
Rolph Shipbuilding Co., Eureka.	Auxiliary barkentine.	1,500		Not yet started.
Do	do	1,500		Do.
Do	do	1,500		Do.
Jas. Robertson, Benicia	Auxiliary schooner	1,250		Standard Oil Co.
Do	do	1,500		A. F. Mahoney.
National Shipbuilding Co., Seattle.	do	2,800	Spring of 1918	Furman & Pedersen.
Do	do	2,800	do	Norwegians.
Aberdeen Shipbuilding Co., Aberdeen, Wash.	Fanestrand auxiliary schooner.	2,250	Now	Kahrs & Kahrs, Norwegian.
Do	do	1,600		W. R. Grace & Co.
Do	Suzanne, schooner.	1,500	Now	French-American Ship Co., French.
Columbia Engineer Works, Portland, Oreg.	Auxiliary schooner	700	February, 1918	M. T. Snyder.
Do	do	700	March, 1918	Do.
Do	do	800	April, 1918	Builders.
G. M. Standifer Construction Corporation, Portland, Oreg.	Gas screw	2,100	Now	I. T. Williams Co.
Do	Auxiliary schooner	1,800	do	Libby, McNiel & Libby.
Grays Harbor Shipbuilding Co., Aberdeen, Wash.	do	2,500		Norwegian account.
Do	do	2,500		Do.
Do	do	2,500		Do.
Do	do	2,400		Owner's account.

[1] 8 more steamers contemplated.

Power vessels under construction under 2,500 tons—Continued.

Builder.	Class.	Tonnage.	Time of completion.	Owners.
Kruse & Banks, North Bend, Oreg.				
McEachern Ship Co., Astoria, Oreg.	Auxiliary schooner	1,800	Soon	A. O. Andersen Co.
Do	do	1,800	February, 1918	Do.
Do	do	1,800	March, 1918	Do.
Groton Iron Works, Groton, Conn.	do	800		
American Car & Foundry Co., Wilmington, N. C.	do	1,400	May, 1918	Owner's account.
Do	do	1,400	July, 1918	Do.
Brunswick Marine Construction Co., Brunswick.	do	1,400	December, 1917	R. Lawrence Smith.
Do	do	1,400	January, 1918	Do.
Do	do	1,600		Do.
Do	do	1,600		Do.
Hillyer Spearing Dunn, Jacksonville.	do	800	December, 1918	David Berg Distilling Co.
Howland & Nelson, Orange, Tex.	do	1,250	Spring of 1918	Orange Marine Corporation.
Do	do	1,250	do	Do.
Wilmington Iron Works, Wilmington, N. C.	do	2,000	January, 1918	
Do	do	2,000	March, 1918	
Savannah Engineering & Construction Co., Savannah, Ga.	do	1,250		R. Lawrence Smith.
Do	do	1,250		Celtic Transportation Co.
Slidell Shipbuilding Co., Slidell, La.	do	750	December	C. L. Dimon.
Do	do	1,000		Do.
Do	do	1,000		Do.
Do	do	1,200		Baltic Steamship Co.
Do	do	1,200		Do.
F. H. Swails, Orange, Tex	Auxiliary barkentine.	1,700		Henry Piaggio.
Do	do	1,700		
Do	do	1,700		
Do	do	1,700		
Do	do	1,700		
Do	do	1,700		
Do	do	2,200		
Do	do	2,200		
Do	do	2,200		

Total steamers	48,200
Total auxiliary schooners	117,650
Grand total	165,850

The CHAIRMAN. This completes the hearing for this afternoon. We will now adjourn until next Wednesday at 2 o'clock p. m.

(Thereupon, at 5.10 o'clock p. m., the committee adjourned to meet at 2 o'clock p. m. on Wednesday, December 26, 1917.)

UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.

WEDNESDAY, DECEMBER 26, 1917.

UNITED STATES SENATE,
COMMITTEE ON COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 2 o'clock p. m. in the committee room, Capitol, Senator Duncan U. Fletcher presiding.

Present: Senators Fletcher (chairman), Bankhead, Nelson, Jones, Sherman, Harding, Calder, and Johnson.

The CHAIRMAN. Mr. Stevens is present this afternoon, and he would like to proceed now, and we can go on with Admiral Bowles after we have heard Mr. Stevens, if that is agreeable to the committee.

Senator NELSON. I can see no objection to that, Mr. Chairman.

The CHAIRMAN. Then the committee will hear you now, Mr. Stevens.

STATEMENT OF HON. RAYMOND B. STEVENS, COMMISSIONER OF THE UNITED STATES SHIPPING BOARD.

The CHAIRMAN. Mr. Stevens, you are one of the commissioners of the Shipping Board?

Mr. STEVENS. I am.

The CHAIRMAN. When did you begin your service there?

Mr. STEVENS. March 15.

The CHAIRMAN. This year.

Mr. STEVENS. Yes, sir; this year.

The CHAIRMAN. You are one of the trustees of the Emergency Fleet Corporation, are you?

Mr. STEVENS. I am.

The CHAIRMAN. What position do you hold in that corporation other than trustee?

Mr. STEVENS. I am treasurer.

The CHAIRMAN. You are treasurer? What have been your principal activities since you became a member of the Shipping Board, Mr. Stevens?

Mr. STEVENS. My principal activities have been in connection with the labor department, both in the operation of ships and in the building of ships.

The CHAIRMAN. Well, you might state to the committee what you found the situation with regard to labor to be when you took charge, and what the present situation is.

Mr. STEVENS. I will say, Mr. Chairman, that I first took charge of the labor problem in connection with the operation of ships and the loading of ships, and the board secured an agreement with the officials of the International Longshoremen's Union for a voluntary arbitration during the period of the war of all disputes which might arise in connection with the loading and unloading of vessels; and we created local boards in all the chief ports in the United States and a central board in Washington, of which I have been the chairman. And we so far have been able to adjust peaceably all wage disputes and other disputes that have arisen in connection with the loading and unloading of ships.

Senator NELSON. Excuse me for interrupting you, but I want to get this information in the record at this point: That work is all carried on on the closed-shop theory, is it not?

Mr. STEVENS. No; not entirely.

Senator NELSON. Not entirely?

Mr. STEVENS. No. On the west coast it has been open shop entirely. On the Atlantic coast in some places it is closed shop and in some places they employ both union and nonunion labor.

Senator NELSON. Where you find that last-named condition to exist do you find any trouble in keeping union men and nonunion men at work in the same shop?

Mr. STEVENS. No.

Senator NELSON. There has been no trouble of that kind?

Mr. STEVENS. There has been no trouble. The longshoremen's union does not, as a rule, demand the closed shop; that is, they do not demand that only union men be employed.

Senator NELSON. So that you have had no trouble on that score?

Mr. STEVENS. No.

Senator NELSON. Excuse me for interrupting you. You may now proceed with your statement.

Mr. STEVENS. We also secured an agreement, which was signed by the officials of the seamen's union and signed by the Shipping Board and by the principal shipping companies, which established a wage scale which should prevail for a year among sailors and firemen and cooks, etc., aboard all the merchant ships. For a considerable time I have——

Senator NELSON (interposing). How much is that wage scale in excess of the scale which prevailed before the war?

Mr. STEVENS. Well, very much more, Senator Nelson.

Senator NELSON. Well, how much of an increase, by percentages?

Mr. STEVENS. In the war zone I should think it was nearly double; in the war zone there is a bonus of 50 per cent.

Senator NELSON. But outside of the war zone how much of an increase has there been?

Mr. STEVENS. It is nearly double.

Senator NELSON. It is nearly double all through?

Mr. STEVENS. Yes; all through.

Senator NELSON. So that the sailors now, and the officers, in our merchant fleet get nearly double what they did before the war?

Mr. STEVENS. Yes.

Senator NELSON. Are they all union men, or do they allow nonunion men to ship?

Mr. STEVENS. They allow nonunion men to ship. The Pacific coast is pretty fairly organized, and a good many of the ship companies there, I think, deal only with the union; but there are a few companies, I think, which do not. On the Atlantic coast it is not closed shop; union men work with nonunion men. The union men, I think, expect preference; they expect to be given an opportunity to supply the men.

Now, passing to the labor question in connection with shipbuilding, work in that field has been done only in the last two months or so. There are always two aspects to the labor problem: First, to keep the men who are engaged in the industry continuously at work, and, second, to secure the additional number of men necessary for such a large program, if we want expedition in the building of the ships.

On the question of keeping the men who are there continuously at work and avoiding strikes and lockouts, the board secured an agreement, to which the Navy was also a party and which was signed up by practically all the international presidents of the unions that are represented in that industry, which provided that during the period of the war all disputes concerning wages and conditions of labor should be adjusted by a Federal arbitration board, which should establish wages and other conditions where there was a dispute. And that board recently went to the Pacific coast and established there a uniform scale for the whole Pacific coast, and at the present time they are taking up wage demands and complaints on the Atlantic coast.

Senator NELSON. Is there not a strike now impending among the metal workers on the Pacific coast?

Mr. STEVENS. Not in the shipyards.

Senator NELSON. No; but in the metal trades there is, is there not?

Mr. STEVENS. There is.

Senator NELSON. And those metal workers are closely connected with the equipment and furnishing of the ships, are they not?

Mr. STEVENS. Some of them are.

Senator NELSON. Yes; and there is a threat of a tie-up there, is there not?

Mr. STEVENS. Yes; that is true.

Senator NELSON. Now, is it not a fact that our shipbuilding operations have been, to a large extent, retarded by strikes and threatened strikes?

Mr. STEVENS. They have been retarded—I can give you the exact figures of that, Senator Nelson. Reports from 106 shipbuilding companies which have contracts with the Emergency Fleet Corporation show that there have been stoppages of work in 30 different companies since the war began. The number of days actually lost amounts to 596,992 working days.

Senator NELSON. Yes.

Mr. STEVENS. And that means about 20,000 men out 30 days, approximately.

Senator NELSON. That is the whole of it?

Mr. STEVENS. Yes. Of course, there are a great many of those stoppages that occurred before we undertook to establish some machinery for the harmonious adjustment of differences.

Senator NELSON. I refer to the period that the Shipping Board and the shipbuilding corporation have been in operation.

Mr. STEVENS. Yes.

The CHAIRMAN. Do you mean to say that all those companies experienced those difficulties?

Mr. STEVENS. Thirty out of 106 companies have had actual stoppages of work, and of course there have been threatened strikes frequently. I personally have adjusted quite a good many strikes.

Senator NELSON. What has been the nature of the strike? Has it been a strike simply for improved conditions in the matter of wages, or has the open-shop question and the union question figured in the matter?

Mr. STEVENS. Most of the strikes have been for better working conditions, increase in pay, and shorter hours. There have been strikes which grew out of union questions—unfair material, etc.

Senator NELSON. In this San Francisco metal-trade strike that is now impending, they tentatively raised the wages about 30 per cent and then you agreed, your board, did it not, to increase it 10 per cent more during the war? Tell us about that situation, please.

Mr. STEVENS. The adjustment board took as the standard for increase in wages the increase in the cost of living, and since the last wage had been established by agreement between the men and the companies——

Senator NELSON (interposing). When was that?

Mr. STEVENS. 1916.

Senator NELSON. 1916; that was a year ago?

Mr. STEVENS. Yes; August 1, 1916, the unions and the companies signed up an agreement for one year fixing the wage scale.

Senator NELSON. And that was an increase on the preexisting wage scale, was it not?

Mr. STEVENS. I do not know; it was not in San Francisco, but it may have been in Seattle.

Senator NELSON. Yes.

Mr. STEVENS. The wage-adjustment board found that living had increased 31 per cent; so it added practically 31 per cent to that standard of wages which had been fixed in 1916.

Senator NELSON. And the men insisted on an increase of 50 per cent, did they not?

Mr. STEVENS. I do not know; they wanted a wage scale of $6.

Senator NELSON. Well, practically it amounted to an increase of 50 per cent, did it not—what they wanted?

Mr. STEVENS. I do not think it was quite 50 per cent; it would have been, perhaps, 40 per cent.

Senator NELSON. Then your board went down and agreed to make up 10 per cent more, did it not?

Mr. STEVENS. No; they were dissatisfied with that, and, in a way, appealed to the Navy and the Shipping Board for some readjustment. The Navy and the Shipping Board agreed that they would give 10 per cent bonus.

Senator NELSON. Yes.

Mr. STEVENS. That is, to all men who put in continuous work every week, who got in six days a week, and agreed that by February that would be made a permanent 10 per cent advance in wages.

Senator NELSON. To all that were engaged in shipbuilding work?

Mr. STEVENS. Yes; to all engaged in shipbuilding work.

Senator NELSON. You would give them a bonus in addition to their other wages?

Mr. STEVENS. Yes. We hoped that in that way we could secure more continuous employment, as all of these plants have found a difficulty in keeping their men at work for the full six days in the week.

Senator CALDER. I want that point made clear, that the Shipping Board has agreed to add to the cost of the ships 10 per cent; or in other words, pay to the shipyard owner 10 per cent additional for labor that worked each week a full continuous week. Is that right?

Mr. STEVENS. Ten per cent of what the labor cost; that is, the Shipping Board, the shipping corporation, will bear the expense of this 10 per cent bonus to the man who works a full week.

Senator CALDER. Then, if a man works only five days out of six he does not get that additional 10 per cent?

Mr. STEVENS. He will not, unless he was sick or had some other good excuse.

Senator CALDER. If he gives a good excuse, he gets the 10 per cent?

Mr. STEVENS. He gets the 10 per cent; yes.

Senator CALDER. Is it not a fact that practically every man under those circumstances gets the 10 per cent?

Mr. STEVENS. No; I am sorry to say—of course, it has not been in effect long enough on the Pacific coast for us to make up the returns upon it; but I know there are some companies in the East which have had a bonus system of that kind, and in those cases it is not true that all the men get it.

Senator HARDING. Mr. Stevens, has your board endeavored to find out what is the difficulty in getting the men to work six days a week?

Mr. STEVENS. Well, we know in general what it is; yes.

Senator HARDING. What do you think is the reason the men will not work six days a week?

Mr. STEVENS. There are in the shipbuilding industry a good many young men. Some of that work is very hard work, riveting especially. Men without families, if they can earn in four days as much money as they need, are very apt to lay off; and it is with the single men, who under the present wages are earning quite high pay, that they have that difficulty.

Senator BANKHEAD. What is the average wage?

Mr. STEVENS. I could not give you that.

Senator BANKHEAD. You could not give us the average rate they are earning?

Mr. STEVENS. Well, there is a great deal of it that is piecework, and it varies a great deal in different plants. I could not give you the average wage, Senator Bankhead.

Senator HARDING. Pardon me, Senator Bankhead, but you are touching a very interesting question here, that is going to unavoidably interest Congress. You stated just a moment ago, Mr. Stevens, that you were making these extra advances of wages on account of the increased cost of living, and yet, apparently, it is not necessary for the men to work more than four days a week to live under the present cost of living.

Mr. STEVENS. Well, I would say that that was for single men, Senator Harding, and men who are working on piecework and are getting the highest wage and working overtime.

Senator HARDING. Well, is it or is it not a fact that the high scale of wages has had a tendency to decrease the hours of labor?

Mr. STEVENS. Well, that is the opinion that has been stated to us by quite a good many manufacturers. I would not want to say that; I do not know whether the percentage of men now who do not work the full week is greater than it was before. I think you will find in almost any industry that there is more or less of a percentage of men who do not give a continuous week's work.

Senator NELSON. Do you not think that the effect of the high wages and the extra increase you have mentioned has been that the men lay off a part of the time; that they feel that they have earned enough to live on and to have a good time on working four days a week instead of the whole week?

Mr. STEVENS. That is a factor in this, of course——

Senator NELSON (interposing). Then, is it not true that you have practically raised up a kind of kicking gun by this increase?

Mr. STEVENS. Well, as to that——

Senator HARDING (interposing). How many men are at present employed in the shipbuilding industries, do you know?

Mr. STEVENS. Something over 100,000. I might say that the latest return I have is for eighty-odd plants out of 106, and that shows 97,347 men.

Senator HARDING. These men are exempted from military service, are they?

Mr. STEVENS. A good many men have been taken from the plants into the military service. There has been a great difference in the action of the various exemption boards; in some cases they have exempted the men and in other cases they have not.

The CHAIRMAN. It depends on the showing they make as to the necessity for their services in the shipyards, does it not?

Mr. STEVENS. Yes; and it also depends largely on the places.

Senator NELSON. And depends somewhat on the exemption board?

Mr. STEVENS. Yes; somewhat on the exemption board and on the attitude that the company takes.

Senator HARDING. How many men do you think necessary to complete the shipbuilding program which Mr. Hurley outlined to the committee—say 5,000,000 tons of shipping for the next year?

Senator CALDER. Senator Harding, may I interrupt to ask a question upon the cost of labor? As I understand it, Mr. Stevens, your contracts with the shipbuilders contain a provision that where additional wages are demanded by the workingmen, the board will allow that additional rate, provided, of course, the board agrees that the rate ought to be allowed. In other words, the shipbuilder with whom you have made contracts can collect from the board any additional labor costs over their contract price?

Mr. STEVENS. That is true in general. There are two clauses which appear in nearly all the contracts. One is a general clause that the contractor shall obey such instrutcions concerning labor as may be given by the Fleet Corporation. Most of the contracts were figured on the going scale of wages at the time the contract was let and contained a provision that if there is any increase in wages which the shipping corporation authorizes or assents to that increase shall be borne by the corporation and that amount shall be added to the price of the ship.

Senator NELSON. And the Fleet Corporation is left with the power to grant that increase or not in the contracts; is that correct?

Mr. STEVENS. I do not quite understand.

Senator NELSON. Does the Fleet Corporation reserve to itself the right to increase the wages?

Mr. STEVENS. It can, yes; it can increase or decrease the wages.

Senator HARDING. Mr. Stevens, have you ever settled any controversy without an increase of wages?

Mr. STEVENS. I do not remember any at the moment; increases have frequently been much less than those demanded.

Senator HARDING. Has not the fact that your contracts contained provisions for increase tended to encourage strikes?

Mr. STEVENS. I do not think so, Senator. I think the thing which more than any others tends to encourage strikes is the feeling on the part of the workmen that the contractors are making a mint of money out of the business. I have found that condition existing in every instance where I have gone and come personally in contact with the men as I did for a number of weeks while the adjustment board was on the Pacific coast, in an effort to keep the peace on the Atlantic coast. I think if the men realize that this money is coming directly out of the Government they will not be any more excessive in their demands than if they think it is coming out of the company. That is my impression from coming in contact with the men in attending a great many meetings of unions, talking to them and addressing them about it. I think the impression that if the men feel that it is Uncle Sam who is paying this they are going to get all they can is not true, as a general proposition.

Senator HARDING. Nevertheless, the men know that the most of these contracts contain the provision I have referred to, do they not?

Mr. STEVENS. I think they do. Although I found the impression to be quite general among the men that the contracts were straight cost plus 10 per cent, where the employer would not only bear the expense of the additional wages but would get a profit out of it; and I know I produced a surprise by explaining to the men the actual details of the contracts.

Senator HARDING. Was there not an agreement that such a provision should be written into all contracts providing for adjustment of labor disputes?

Mr. STEVENS. You mean with whom, Senator?

Senator HARDING. Let us say the Department of Labor, for instance.

Mr. STEVENS. No, sir; I do not think so. I never heard of any such agreement, although that proviso was put in the contracts originally by Gen. Goethals, who realized that this whole question of wages and labor would have to be more or less in control of the Government.

Senator HARDING. Would it be your opinion, after several months of observation, that there are some forces in labor which are endeavoring to engage in profiteering?

Mr. STEVENS. Why, there is that tendency, I suppose. I think it is in the decided minority. I think the labor-union men or the men engaged in the actual building of ships are very much like other people.

Senator HARDING. Just the same as capital?

Mr. STEVENS. Yes; as between laborers and capital, between workmen and business men, or farmers and business men, or Congressmen and business men—it is all about 50/50.

Senator HARDING. Would you mind going back and telling me how many men are needed to carry out this program?

Mr. STEVENS. That is a very difficult question to answer. There are probably now somewhere—taking in these figures on companies we have not got accurate reports on—around 150,000 men engaged in ship construction directly. Those numbers certainly ought to be more than doubled.

Senator HARDING. Do you think double the number will carry out the program you have in contemplation?

Mr. STEVENS. It will take more than double that number of men to double the production of the men who are already there, because you have got to bring in a lot of men who are unskilled or semi-skilled, and I should assume that in order to come up to the production which we desire it would probably take between 200,000 and 300,000 additional men.

Senator HARDING. Then you are going to need 400,000 men——

Mr. STEVENS (interposing). May I state right there, it is pretty difficult to estimate exactly the number of men which will be required. The shipbuilding industry has always been one in which there has been a large overturn of labor, a great many men coming and going; and there is a great loss in production and a great deal of inefficiency as a result of this continual flow of men from shipyard to shipyard and into the industry and out of the industry.

Senator HARDING. Would it be fair to ask what prospect you have for supplying the necessary number of men to complete this program?

Mr. STEVENS. I think that can be done; yes. There are some trades represented in the shipyards, both steel and wood, which it is very difficult to rapidly increase. In shipbuilding the shipwright or the ship carpenter is difficult to get and difficult to train. In the construction of steel ships, ship fitters and calkers and a few other trades are difficult to secure, but there are a great many men in the country who have been skilled in other industries who can be very rapidly worked into shipbuilding. House carpenters, bridge builders, dock builders—men who have been used to handling heavy timbers—can very soon become qualified to do a lot of the work in the wooden shipbuilding industry. Building-trades men, especially structural iron and steel workers, have been trained in a way that they will become very soon capable men in the shipyards, and at the present time there is a slackening down in many industries which can furnish a lot of men who are already somewhat trained in that direction. For instance, the structural iron work is everywhere slowing down. There is going to be quite a large body of structural iron workers who can be trained and are now being trained in the shipbuilding business.

Senator HARDING. In that connection, is the board doing anything to recruit the ranks of shipbuilding labor?

Mr. STEVENS. It is. In the beginning and for some time the getting of men was left to the individual contractors to follow their own methods, as they have been in the past, and as generally done with respect to other Government contractors, the contract being let to a certain firm or contractor, and it was his business to get the

men. We realize that so many men are needed in these industries, so many contracts have been let, that it is going to require Government aid in the getting of the men. We have already established on the Pacific coast, in cooperation with the Department of Labor, Federal employment agencies which will get from the ship companies on the coast statements of what their needs are in the various grades of men, and then draw those men as far as possible from the district west of the Rockies, using Federal agencies and local agencies—State agencies and municipal agencies—where they exist, in getting the men for the yards; and we probably will have a similar organization in the East.

Senator HARDING. Going back for just a moment; you say you are on this arbitration board?

Mr. STEVENS. No; I am not on the arbitration board for settling strikes in the shipbuilding industry. I happen to be chairman of the adjustment board on longshoremen, which is one of the first, I thing perhaps the first, agreement drawn up between the Government and organized labor providing for voluntary arbitration.

Senator HARDING. I won't ask you, Mr. Stevens, the policy of the board, but I want to get from you a suggestion that I think is pertinent. The Government has facilities, where the builder undertakes a profiteering program, to seize his plant and go ahead with its operations; what remedy have we for the combination of labor that enters into profiteering?

Mr. STEVENS. We have none, if you mean, sir, direct action which the Government can take against labor. Where the owner of the property undertakes to hold up the Government, the Government can take the property and operate it. If there is an attempt to hold up the Government by organized labor and secure greater pay than is fair or just, I do not think it is possible to commandeer labor.

Senator HARDING. You do not think in a war emergency, when the success of the Nation is dependent on our shipbuilding program, that it would be fair or just or practicable to commandeer labor?

Mr. STEVENS. I am not saying whether it would be fair or just. I am saying, as a practical matter, I do not think it could be done; I do not think it would work satisfactorily; I do think you would get much more output under normal conditions. I do not think it is necessary. I do not think that labor had so far shown that it desires to profiteer at the expense of the Government in this war. I certainly feel that the great majority of the leaders in organized labor that I have come in contact with are very patriotic men and are doing their utmost to see that labor does its share in the war.

Senator NELSON. I would like to call your attention to this: I hold in my hand here a copy of the Industrial News Survey, British Industrial Commission Supplement, of December 5, 1917, and I want to read something from it in order to hear your views upon it [reading]:

> The British ministry of munitions, in order to acquaint the American people with Great Britain's war-time experience with labor and with the measures adopted to secure the necessary industrial support for the prosecution of war, sent to this country a commission, composed of Sir Stephenson Kent, director general of the labor-supply department, an important coal operator in England—

and then it names two or three others, among others H. W. Garrod, deputy assistant of the labor-regulation department. Now, here is

the statement of Commissioner Kent. I want to read it to you from this official publication [reading]:

The commissioners—

There were four of them [continuing]—

have visited some of the principal industrial centers of the United States, and have made a deep impression by the valuable information given and by the frankness with which they answered questions. Although they declared that they were rather unfamiliar with American industry and did not intend to give advice, they, and particularly Sir Stephenson Kent, occasionally drew parallels between conditions prevailing in Great Britain and the United States. One of the most significant remarks in this connection was made by Sir Stephenson—

Now, listen to this, every one of you [reading]—

If Great Britain had had one-eighth of the number of labor troubles in the past two years that the United States has had, my country would have had to conclude a disgraceful peace with Germany by this time. Since coming here two months ago I have noted serious strikes and threats of strikes in different parts of the United States. Not only does such a state of affairs indicate serious trouble in this country but it can not fail to affect seriously Great Britain and the other allies.

This statement was supported by Mr. Garrod, who even put the matter more plainly:

"In every city that we have visited in the United States, we have tried to put one fact of our experience before you—that no nation under modern conditions can possibly hope to carry through a great war, such as the present, unless it can maintain industrial peace at home. I say that because since we have been in this country, a matter of about two months, there have occurred a number of very serious industrial disturbances. If one-eighth of those troubles had occurred in England during the whole period of the three years that we have been at war, we should have had to make, long ago, a disgraceful peace. But that is because we are nearer the war than you are at present; but soon you are going to be very near the war indeed, and then you will come to realize that a very small part of such troubles will be sufficient.

In addition to this, Mr. Chairman, certain questions were submitted and answers to them given, and I request to have this document go into the record.

The CHAIRMAN. Without objection the document will be inserted.

(The document referred to by Senator Nelson is here printed in full, as follows:)

[Industrial News Survey—British Industrial Commission Supplement. Vol. I, December 5, 1917, No. 40.]

SOME EXPERIENCES WITH WAR-TIME INDUSTRIAL PROBLEMS IN GREAT BRITAIN.

The British Ministry of Munitions, in order to acquaint the American people with Great Britain's war-time experience with labor and with the measures adopted to secure the necessary industrial support for the prosecution of war, sent to this country a commission, composed of Sir Stephenson Kent, director general of the labor supply department, an important coal operator in England; H. W. Garrod, deputy assistant of the labor regulation department, a member of the faculty of Oxford University; G. H. Baillie, chief technical dilution officer of the labor supply department, an English electrical engineer; Capt Cyril Asquith, director of artificer's allocation of the supply department, son of former Prime Minister of England.

The commissioners have visited some of the principal industrial centers of the United States and have made a deep impression by the valuable information given and by the frankness with which they answered questions. Although they declared that they were rather unfamiliar with American industry and did not intend to give advice, they, and particularly Sir Stephenson Kent, occasionally drew parallels between conditions prevailing in Great Britain and the United States. One of the most significant remarks in this connection was made by Sir Stephenson:

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The commission again and again emphasized the necessity of cooperation of all parties and the need for waiving prejudices, privileges, and trade customs during the war.

At the Boston meeting, on November 6, a number of questions were submitted in writing to the commissioners. The answers were brief, but clear, frank, and highly satisfactory. The following are in substance the principal questions and answers, with some additions from the commissioner's replies to similar questions on other occasions:

Q. Has the stress of war work in munitions industries caused fatigue sufficient to exert an injurious effect upon the health of workers?—A. Work in munitions factories at the beginning of the war required a work week of as many as 100 hours, and even above that, in consequence of which workers soon became worn out. Hours of labor were then gradually reduced, particularly by abolition of Sunday labor and of much overtime. To-day in the engineering trades the normal average work week is from 52 to 54 hours, with about four or five hours regular overtime, or 56 to 60 hours in all. Under these conditions there is no visible adverse effect upon the health of workers. The British workmen are warworn, but this is a mental weariness, not a bodily fatigue. It should be plainly stated that the real obstacle in reducing overtime is not the Government nor the employers, but the men and women who want the added wages. In England there are no regulations or laws as to hours of labor. This is always dealt with by agreement between the trade-unions and the employers' federations. The only alteration that has been made during the war is that the hours which a woman might work were limited to 60 per week. There is no overtime limit for men.

Q. Has the dilution of labor by the employment of women and of many unskilled workers affected the average efficiency as compared with prewar standards?—A. Women in light and medium heavy work have proved to be even more efficient than men, while unskilled labor has been used to good account except when put on work for which much experience and skill are required. Figures were presented showing an enormous increase in output of shells and other munitions by women as compared with the average at the beginning of the war. The figures are comparative, the output for the first year being taken as a base:

	First year.	Second year.	Third year.
Very heavy howitzers	1	5	13
Heavy howitzers	1	5	27
Medium guns	1	8	[1] 6
Field guns (not over 18 pounds)	1	4	[1] 2
Shells, very heavy	1	21	220
Shells, heavy	1	6	70
Shells, medium	1	5	25
Shells, light	1	5	19

[1] This decrease in production is explained by the fact that the Government decreased its demands for these items during the third year.

At present there are over 1,000,000 women engaged in munitions work in England. Probably twenty times as many women have been trained in the plants as in the schools. The training has been given by the skilled men. It is only by their cooperation that the Government has been enabled to attain the present enormous output of munitions.

Q. What effect did the Government guarantee of piece rates have upon the output of workers and were these rates scientifically and equitably arranged?—A. It was definitely stated by a member of the commission that the great increase in output was largely due to the Government's guarantee of a continuance of high piece rates. The Government promised in the spring of 1915 that piecework rates then prevailing should not be cut and that piecework rates set in the future should be maintained during the period of the war. In consequence some rather high piecework prices are now in effect, while new piecework prices have been set with an idea of making them scientifically correct and allowing the average man an average wage. The average wage of ordinary labor in munitions factories is about £2 10s. per week. The rate for skilled tool-room workers is about 1s. to 1s. 6d. per hour. Women, in exceptional cases, make as high as £6 to £10 per week on piecework.

Q. Has there been a shortage of labor in Great Britain during the war; and if so, what measures have been taken to meet it?—A. From the outset there was a constant and decided labor shortage, and as a result there was general competition among manufacturers to "entice" labor and a prospect of ever-increasing wages. The Government, in order to stop such "enticement," empowered the ministry of munitions to regulate the distribution of labor. It can restrict the amount of labor which a given concern or industry can employ and thus virtually control it. The ministry of munitions has also enrolled the skilled workers as war munition volunteers willing to serve in munition plants wherever sent. Such workers are either paid the wage they received in their previous employment or the wage prevalent in the new employment if the latter is higher; they are also reimbursed to a limited amount if they can show that transfer from one place to another has forced them to incur additional living expense.

Sir Stephenson laid great stress on the importance of man power, stating that this was essentially a war of mechanics and that skilled mechanics were absolutely essential for war production in the shops, while machinists and semiskilled workers were sufficiently capable for repair and maintenance of mechanical equipment in the field. He added that the volunteer system adopted in Great Britain early in the war withdrew many of the finest mechanics from industry and that about 40,000 skilled workers sent to France in 1914 had to be returned to their places in the shop.

Q. What percentage of British labor was organized prior to the war and what is the percentage at the present time?—A. Between 40 per cent and 50 per cent of all labor in Great Britain was in labor unions at the beginning of the war; about 75 per cent of the workers in the munitions industry and about 80 per cent to 90 per cent of those in engineering trades and nearly 100 per cent of the workers in shipbuilding industries were organized at that time. It was explained, however, that membership in a union in Great Britain does not mean refusal to work in the same shop with nonunion workmen. Where a preponderance of employees are union workmen they merely insist that wages and conditions demanded by labor unions be also given to nonunion workers employed in the same establishment.

Q. Is it fair to say that employment of women and of many unskilled workers and abandonment of restrictive union practices has virtually changed Great Britain's industries from a closed-shop to an open-shop basis?—A. It was frankly admitted that this has been the case. By agreement with labor organizations all restrictions in respect to output, number of hours, and class of employees have been completely waived during the period of war.

Q. Is it expected that at the close of the war British labor unions will return to the restrictive practices formerly in vogue and has any agreement been entered into with the Government or with employers in respect to this?—A. By the "treasury agreement" labor organizations are pledged to abandon for the period of the war all restrictive practices and not to resist the dilution of labor by employment of unskilled labor and of women. The Government, on the other hand, has bound itself by the "treasury agreement" to permit resumption of restrictive practices of the labor unions after the conclusion of the war.

Sir Stephenson, however, expressed it as his personal conviction that before the war is over the British Government will bring employers and labor unions

together and demand that in the interest of national security they enter into a new and reasonable agreement regarding trade practices and restrictions to be effective after the war. His impression, from talking with union men, is that another agreement similar to the "treasury agreement" will be adopted. "In other words," he said, "I do not believe that trade-unions will insist on their pound of flesh."

Q. In what way has the Government prevented undue profits and exorbitant wages during the war?—A. By the "treasury agreement" of March, 1915, the profits of manufacturers were limited to not more than 20 per cent over the prewar average for two years out of three. In respect to wages the Government, with consent of the unions, decreed that the wages existing at the outbreak of the war should be maintained during the period of the war. The Government, however, promised to have the cost of living investigated three times each year; and if the cost of living was found to have materially increased, to pay to the workers a corresponding bonus in addition to their wages. This bonus is, in the first instance, paid by the employer to his employees, but the employer is reimbursed by the Government. So far three such bonuses have been paid, amounting in all to about 15 shillings per week. Sir Stephenson was particularly emphatic in pointing out that the increased cost of living is not compensated for by an increased wage, but by a governmental bonus paid in addition to the standard wage.

Sir Stephenson explained that limitation of nonessential industries was accomplished through control of raw materials and by the regulation of distribution of labor previously described. In order to secure raw materials the employer must apply to the ministry of munitions for a license, stating the purpose for which he intends to use such materials. As an instance, the ministry of munitions has allotted the steel under its control as follows:

	Per cent.
To allies	13
To shell manufacturers	24
To admiralty	21
To war office	6
To construction and steel-work extensions	8
To railways, machinery, and aircraft	17
To other civilian and miscellaneous purposes	11

All steel obtained from the United States is devoted to war purposes.

Q. Is labor in Great Britain conscripted for industrial work and how are strikes and lockouts prevented?—A. Labor is not conscripted for industrial work, but incitement to or participation in a strike or lockout is a penal offense, extreme penalty for which is life servitude. No lockout has occurred since the "treasury agreement" was entered into between employers, trade-unions, and the Government in March, 1915, and the few strikes occurring in the early period of the agreement were of minor consequence. All trade disputes are submitted to compulsory arbitration in which the Government is mediator. Sir Stephenson added that, so far as he could recall, there had not been a single strike for an advance in wages.

Great strikes have occurred only in the coal industry, but this industry is not under jurisdiction of the ministry of munitions.

Senator NELSON. Now, I desire to ask you about this matter: Is it not a fact and practically true what these gentlemen have described in this pamphlet?

Mr. STEVENS. I do not know, Senator.

Senator NELSON. Then you are not familiar with the situation in this country?

Mr. STEVENS. They make the statement that if one-eighth of the difficulties we have had occurred in England that they would have had to make a disgraceful peace. I say I do not know anything about that. It is true, as I have just stated, that there have been strikes of various kinds in the shipbuilding industry. There have been 30 plants where there was actual stoppage of work for more or less time since we have been in the war. That shows more or less labor disturbance. But we are a very much larger country than

England, have very much more varied conditions, and many more men at work. Of course, I did not discuss this matter with these gentlemen and I can not pass on their views on the subject.

Senator NELSON. How many of these shipyards are operated as union plants and how many as open shops; I mean these shipyards that you have contracts with?

The CHAIRMAN. Of the 30?

Senator NELSON. Of all these that the shipbuilding corporation have building contracts with?

Mr. STEVENS. The greater bulk of them are open shops.

Senator NELSON. They are?

Mr. STEVENS. Yes; employing both union and nonunion men.

I would like to state right here, in connection with that statement by the Englishmen, that we have a very different situation than the English. The English workers are practically entirely organized labor. When the war started over 75 per cent of all labor in England was organized. Since the war the little that was not organized has become organized. In this country we have a very large percentage of unorganized labor. It would be simpler here to deal with this situation if all our labor were organized and had been organized for a period of years, and had well established, matured labor unions in control more or less of the labor situation. It is simpler to deal with labor where it has been organized.

Senator NELSON. I know.

Mr. STEVENS. And labor which has been organized for a period of time, the older established unions, are headed by very able, patriotic, capable men. Of course, you will find some men among those—about 10 per cent of these plants actually run a closed shop; the rest are open, although in many of those open shops there are a good many union men.

Senator HARDING. Mr. Stevens, do not the unions in their contracts provide to furnish men and essentially fix their time of labor, i. e., suppose you were yourself a contractor with some branch of the shipbuilders' unions, would they have any contract with you to furnish men at so much and that those men would work six days a week?

Mr. STEVENS. A part of the closed-shop agreement is that the union shall furnish the men necessary. I never heard of any agreement that the men should work six days a week.

Senator HARDING. Then, if it is a policy of the arbitration board to meet requirements of conditions and wage, why are we called upon to pay 10 per cent more to get work done?

Mr. STEVENS. The board felt that it should do everything possible, everything that could be done, to increase the output of these plants. Some plants have had a bonus system of that kind. We felt we would try it as an experiment, to see whether we could not keep the men more continuously employed.

Senator HARDING. Is that to be the policy of the Government yards that we are building?

Mr. STEVENS. I do not know whether that will apply to the Government yards in the East or not. It will depend, I think, very largely upon the success of the plan on the Pacific coast. If it should be shown by actual results at this plant on the Pacific coast that the output of the yard has been substantially increased by pay-

ing a bonus to the men who would work a full week, it certainly would be worth trying elsewhere, because the immediate increase in production is the one thing that the board is aiming at.

Senator HARDING. Does not organized labor oppose any bonus pay?

Mr. STEVENS. They do, as a rule; yes. We do not call this a "bonus"; we call it a "war premium."

Senator NELSON. Who inspired this "war premium"? From what source did it come? Was it your recommendation?

Mr. STEVENS. It was not my personal recommendation. I do not know.

Senator NELSON. Who did it come from?

Mr. STEVENS. I do not know who suggested it, Senator. It was made somewhere within the corporation itself.

Senator NELSON. Take this California case that I referred to. They insisted on an increase of upward of 50 per cent over the 1916 schedule. They finally had a compromise. You had arbitration there, and that gave them 30 per cent, did it not?

Mr. STEVENS. Yes.

Senator NELSON. You say the increase in the cost of living was about that?

Mr. STEVENS. Yes.

Senator NELSON. On the top of that you have gone to work, through your commission, and given them 10 per cent more of a bonus, have you not?

Mr. STEVENS. We have.

Senator NELSON. In addition to that, and still they are out on a strike?

Mr. STEVENS. No; they are not on a strike in the shipyards.

Senator NELSON. The metal workers are.

Mr. STEVENS. I will tell you about that. The metal workers in other industries outside of the shipyards demanded this same 10 per cent premium, and the employers' association refused to grant it. So the strike is in the outside industries, largely private industries, for the premium.

Senator NELSON. Does not that show you, then, that the bonus you give in shipbuilding is going to affect all other industries in the country? They are going to say: "Here, Uncle Sam gives men engaged in the shipbuilding industry 10 per cent bonus. You gentlemen have got to make that up to us or we will strike." Is not that going to be the effect of it?

Mr. STEVENS. That may have some effect that way, but, still, Senator, I think it is very apparent, no matter how much the wage-adjustment boards or Government boards increase wages, that they would be increased even more, and chaos without end would exist if you left it to the individual contractors to fix wages.

Let me say this in justice to labor: A good many of the strikes and difficulties that have existed in the last six or eight months in the shipbuilding industry have grown out of increases in wages given by one company to get men away from other companies. So that there is a continual contest.

Senator HARDING. Some firm on the Pacific coast made a speedier launching than any other, yet?

Mr. STEVENS. It did.

Senator HARDING. What was the result of the wage question abo that speeding-up program?

Mr. STEVENS. When the wage scale in Seattle expired this l August the unions made a demand for quite a large increase wages. This company granted the demand: the other compan refused. Consequently they got the cream of the labor in that d trict. Most of the men of the other companies went out on a stri and that particular company is the one which did turn out a ship record time, but there is no doubt in my mind that in that particul district, as a whole, there will be less ships produced as a result what has happened, and what we are looking for is the productio of all the yards and not a record in one yard.

Senator NELSON. Was that a wooden-ship yard?

Mr. STEVENS. No; a steel yard.

The CHAIRMAN. Where were these 30 plants in which the labo trouble, generally speaking, occurred?

Mr. STEVENS. I think they were all over. I have got a list some where.

Senator NELSON. Can you read from the list the names of the plants in which the strikes occurred and let us know in each case what the strike was about?

The CHAIRMAN. And the location.

Senator NELSON. And the location; that is right.

Mr. STEVENS. I have here a statement which shows the plants in which strikes occurred, the dates, and the number of men out, but not the cause of the strike. It includes them all. Shall I read it over? I can furnish that later if you would like it.

The CHAIRMAN. That might go into the record, and then the other supplementary statement can come later.

Mr. STEVENS. It would be better to have this all in one statement.

Senator NELSON. It would be better to have it all in one statement there, so that you can show whether it was on account of closed shop.

Mr. STEVENS. Yes.

Senator NELSON. Whether union or closed shop, the question of wages or hours, or both.

The CHAIRMAN. Perhaps you had better withhold that and insert it later.

Mr. STEVENS. I think it would be better, and then it will be all in one statement.

(The statement referred to is here printed in full, as follows:)

In response to inquiries issued by the United States Shipping Board under date of November 19, 1917, it has received reports from 100 shipbuilding companies having contracts with the United States Shipping Board Emergency Fleet Corporation for the construction of ships; and from these reports there has been incorporated into the accompanying statement the following information: 1. Number of strikes, by plants, occurring subsequent to the creation of the Emergency Fleet Corporation and prior to December 1, 1917. 2. Dates of occurrence of same. 3. Dates of termination. 4. Number and classifications of men involved, so far as possible. 5. Cause and manner of settlement of each strike.

Thirty-seven of these companies report that they have had stoppage on Government construction due to strikes; the total number of strikes occurring in all the plants aggregating 84; the total number of men involved, 39,535; and the total number of working days lost, 587,336, or approximately 19,500 men out for 30 days.

The following table shows the number and per cent of strikes due to the various causes appearing therein:

Cause.	Number.	Approximate per cent.
Wage question	61	72
Sympathy	4	5
Wage and working conditions	2	3
No reason assigned	13	15
Unfair work	3	4
Open and closed shop and wage	1	1
Total	84	100

STATEMENT OF STRIKES OCCURRING IN PLANTS OF SHIPBUILDING COMPANIES HAVING CONTRACTS WITH THE EMERGENCY FLEET CORPORATION, SETTING FORTH THE DATES OF OCCURRENCE, DURATION, AND TERMINATION, NUMBER AND CLASSIFICATION OF MEN INVOLVED, CAUSE OF STRIKE, AND MANNER OF SETTLEMENT.

Alabama Dry Dock & Shipbuilding Co., Mobile, Ala.

August 14, 1917, 70 machinists and helpers struck; duration, four days; cause, wage question; settled by increase in pay.

August 1, 1917, 360 ship fitters and helpers struck; duration, five days; cause, wage and working conditions question; settled by increase in pay and recognition of union.

July 29, 1917, 200 laborers struck; duration, 21 days; cause settled.

Albina Engine & Machine Works, Portland, Oreg.

September 24, 1917, all men struck; duration, 29 days; cause, wage question; settled by wage adjustment board.

American International Shipbuilding Corporation, Philadelphia, Pa.

No stoppage.

American Shipbuilding Co., Brunswick, Ga.

No stoppage.

Ames Shipbuilding & Dry Dock Co., Seattle, Wash.

September 13, 1917, 70 men, lumber boycott, struck; duration, 39 days; termination, October 22, 1917; cause, wage question; settled, wage adjustment board.

September 29, 1917, to October 22, 1917, 1,630 men struck; duration, 22 days; cause, wage question; settled by wage adjustment board.

Babare Bros. Shipyard, "Old Town," Tacoma, Wash.

No stoppage.

Baltimore Drydock & Shipbuilding Co., Baltimore, Md.

September 29, 1917, to October 3, 1917, 250 carpenters and joiners struck; duration, 4 days; settled by returning to work; no concessions by companies.

November 10, 1917, 100 reamers and helpers struck; duration, one-half day; cause, wage adjustment; settled by increase in wage.

November 10, 1917, to November 12, 1917, 70 ship-fitters' helpers struck; duration, 2 days; cause, wage question; settled by increase in wage.

November 12, 1917, to November 13, 1917, 75 passer boys struck; duration, 1 day; cause, wage question; settled by increase in wage.

November 27, 1917, to November 29, 1917, 150 bolters up and helpers struck; duration, 1½ days; cause, wage question; settled by increase in wage.

Bayles Ship Yard (Inc.), Port Jefferson, N. Y.

No stoppage.

Beaumont Shipbuilding Co., Beaumont, Tex.

No stoppage.

Benicia Shipbuilding Corporation, San Francisco, Cal.

No stoppage.

Bethlehem Steel Co., Fore River plant, Quincy, Mass.

October 30, 1917, to November 6, 1917, 3,500 men struck; duration, 7 days; cause and manner of settlement not stated; class of men involved not stated.

Bethlehem Shipbuilding Corporation, Elizabeth, N. J. (Moore plant).

July 6, 1917, to October 25, 1917, 500 machine shop and shipyard men struck; duration, 3½ months, or 105 days; cause, wage question; settled by reorganization of machine shop; shipyard men returned to work without concessions.

Bethlehem Steel Co., Wilmington, Del. (Harlon plant).

August 23, 1917, 400 men, classifications not stated, struck; duration, 60 working days; cause, wage question; settled by temporary increase of 10 per cent pending adjustment of day-work and piecework schedules by labor-adjustment board.

August 24, 1917, 32 mechanics and 36 helpers struck; duration, 10 working days; cause, no demands made when men struck; settled by rehiring some of old men and recruiting new men; conditions now satisfactory in this department.

Bethlehem Shipbuilding Corporation (Union plant), San Francisco, Cal.

September 15, 1917, 8,700 men struck (classification not stated); duration, 14 days; cause, wage question; settled by temporary agreement pending adjustment by wage-adjustment board. On November 30, 1917, this plant informed the board that the wage-adjustment board had visited the vicinity and adjusted the wages; this was accepted by the employers; employees will not accept and their delegates are taking up matter with metal trades department, American Federation of Labor, Buffalo; this is latest report to date, December 27, 1917.

California Shipbuilding Co., Long Beach, Cal.

No stoppage.

Chandler, R. J., Los Angeles, Cal.

No stoppage.

Chester Shipbuilding Co., Chester, Pa.

August 21, 1917, to August 22, 1917, riveters struck (number not stated); duration, 1 day; cause, wage question; settled by increase in wages.

August 24, 1917, to August 31, 1917, bolters struck (number not stated); duration, 6 days; cause, wage question; settled by increase in wages.

October 3, 1917, to October 4, 1917, heaters struck (number not stated); duration, 1 day; cause, wage question; settled by increase in wages.

October 22, 1917, to October 25, 1917, light sheet-metal workers struck (number not stated); duration, 3 days; cause, wage question; settled by increase in wages.

October 17, 1917, to October 30, 1917, crane runners struck (number not stated); duration, 13 days; cause, wage question; settled by increase in wages.

November 15, 1917, to November 20, 1917, ship fitters struck (number not stated); duration, 5 days; cause, wage question; settled by increase in wages.

November 19, 1917, to December 1, 1917, machinists struck (number not stated); duration, 10 days; cause, wage question; settled by increase in wages.

Coast Shipbuilding Co., Portland, Oreg.

Not reported.

Columbia River Shipbuilding Corporation, Portland, Oreg.

September 24, 1917, to October 22, 1917, 1,336 men (classifications not stated); duration, 24 working days; cause, wage question; settled by wage adjustment board.

Coos Bay Shipbuilding Co., Marshfield, Oreg.

No stoppage.

Fulton Shipbuilding Co., Wilmington, Cal.

No stoppage.

Craig Shipbuilding Co., Long Beach, Cal.

No stoppage.

Cramp, Wm., & Sons, Ship & Engine Building Co., Philadelphia, Pa.

Duration.	Working days lost.	Class of workers.	Men involved.
Jan. 2-3	1	Ship fitters and helpers	255
Feb. 10-28	16	Power and plant helpers	169
Feb. 24-27	3	Chipping and calking quartermen	8
Feb. 26-Mar. 12	12	Acetylene cutters	20
Feb. 28-Mar. 6	6	Laborers	67
Do	6	Coke handlers	5
Feb. 28-Mar. 3	3	Stage builders	20
Do	3	Rivet heaters and passers	170
Do	3	Chippers and calkers	95
Mar. 5-9	4	Iron-foundry men	280
Apr. 18-20	2	Stage builders' helpers	30
May 2-28	24	Outside machinists, pipe fitters, and helpers	250
May 14-31	16	Ship carpenters and joiners	256
July 23-26	3	Rivet passers	80
July 24-Aug. 20	23	Coppersmiths	50
Aug. 6-14	7	Laborers	130
Sept. 6-8	2	Chipping and calking and rivet quartermen	16
Sept. 25-26	1	Furnace men	40
Oct. 10-12	2	Engineers and crane operators	90
Oct. 10-29	17	Painters	130
Nov. 7-9	2	Machine-shop apprentices	35

Cause of the foregoing strikes, question of wage. "In all cases strikes were settled by conference with committees of workmen, and compromises satisfactory to them were effected."

Cumberland Shipbuilding Co., Portland, Oreg.
No stoppage.

Daniels, Oscar, Co., Woolworth Building, New York City.
No report.

Dantzler Shipbuilding & Drydock Co., Moss Point, Miss.
No stoppage.

Dierks-Blodgett Shipbuilding Co., Kansas City, Mo.
No stoppage.

Downey Shipbuilding Corporation, New York.
No report.

Duthie, J. F., & Co., Seattle, Wash.
No report.

Erickson Engineering Co. (Inc.), New York City.
No report.

Feeney & Bremer, Tillamook, Oreg.
No stoppage.

Foundation Company, Woolworth Building, New York City.
November 12, 1917, 125 men struck (classification not stated); duration, 1 day and a half; cause, wage question; settled by men returning to work.

Freeport Shipbuilding Co., Freeport, Me.
No stoppage.

Gilchrest, Geo. A., Thomaston, Me.
No stoppage.

Grays Harbor Motor Ship Corporation, Seattle, Wash.
July 28, 1917, to August 27, 1917, 225 men struck (classification not stated); duration, 30 days; cause, sympathy; settled (not stated).

Gildersleeve Ship Construction Co., Gildersleeve, Conn.
No stoppage.

Globe Shipbuilding Co., Superior, Wis.
Date and termination of strike not stated. Forty men struck (classification not stated); duration, two days; cause, wage and working conditions; settled by agreement to pay overtime after eight hours and increased wages.

Grant Smith-Porter-Guthrie Co., Portland, Oreg.
September 15, 1917, 600 men struck (classification not stated); duration, 30 working days; cause, wage question; settled by Wage Adjustment Board.

Great Lakes Engineering Works, Detroit, Mich.
No stoppage.

Groton Iron Works, 50 Broad Street, New York City.
No stoppage.

Hammond Lumber Co., San Francisco, Cal.
No stoppage.

Hampton Roads Dry Dock & Shipbuilding Corporation, Norfolk, Va.
No stoppage.

Hanlon Dry Dock & Shipbuilding Co. (Inc.), Oakland, Cal.
September 17, 1917, to October 1, 1917, 400 men struck (classification not stated); duration, 14 days; cause, wage question; settled by Wage Adjustment Board.

Heldenfels Bros., Beeville, Tex.
No stoppage.

Hillyer-Sperring-Dunn Plant, Jacksonville, Fla.
No stoppage.

Hodge Ship Co., Moss Point, Miss.
No stoppage.

Housatonic Shipbuilding Co. (Inc.), Stratford, Conn.
No stoppage.

Jahncke Shipbuilding Co., New Orleans, La.
No stoppage.

Johnson Shipyards Corporation, 2941 Richmond Ter. M. H. S. I., New York.
No stoppage.

Kelly Atkinson Construction Co., Security Building, Chicago, Ill.
No stoppage.

Kingston Shipbuilding, Kingston, N. Y.
No stoppage.

Kruse & Banks Shipbuilding Co., North Bend, Oreg.

No stoppage.

Lone Star Shipbuilding Co., Beaumont, Tex.

No stoppage.

Los Angeles Shipbuilding & Drydock Co., Los Angeles, Cal.

No report.

McBride & Law, Beaumont, Tex.

October 26, 1917, to October 27, 1917, inclusive, 115 men struck (classifications not stated); duration, day and a half; cause, wage question; settled by men coming back at old wage scale.

McCammon, J. M., Houston, Tex.

No report.

McDougall Duluth, Duluth, Minn.

No stoppage.

McEachern Ship Co., Portland, Oreg.

No report.

Manitowoc Shipbuilding Co., Manitowoc, Wis.

No stoppage.

Maryland Steamship Co., Lexington Bldg., Baltimore, Md.

No stoppage.

Meacham & Babcock Shipbuilding Co., Seattle, Wash.

No stoppage.

Merchant Shipbuilding Corporation, Finance Building, Philadelphia, Pa.

No stoppage.

Merrill Stevens Co., Jacksonville, Fla.

No stoppage.

Midland Bridge Co., Kansas City, Mo.

No stoppage.

Mobile Shipbuilding Co., Mobile, Ala.

No stoppage.

Moore & Scott Iron Works, Oakland, Cal.

February 15, 1917, 250 heater boys in riveting department threatened to strike; cause not stated.

March 3, 1917, to March 17, 1917, 1,800 laborers and bolters up struck; duration, 12½ working-days; cause not stated; settlement not stated.

May 24, 1917, 300 men (boiler makers) struck; duration, not stated; cause, men refuse to work on boilers constructed by Williamette Iron Works, of Portland, Oreg., claiming work unfair, this yard being an open shop. Settled by meeting a Boilermakers' Union of Local 6.

September 15 to October 1, 1917, 2,500 men (classifications not stated) struck; duration, 12 working-days; cause, wage question; settled by temporary agreement pending adjustment by wage adjustment board.

On October 22, 1917, machinists (number not stated) struck; duration, 1 day; cause, refused to work on boilers constructed by Willamette Iron Works; settlement not stated.

On November 3, 1917, riggers (number not stated) struck; duration, 1 day; cause, unfair work; settlement not stated.

October 26, 1917, 500 heater boys struck; duration, 1 day; cause, discharge of one of the boys for loafing; sympathetic strike; settled when union advised of state of affairs.

Moore & Scott Iron Works, San Francisco, Cal.

No report.

Morey & Thomas, 1212 Chemical Building, St. Louis, Mo.

No stoppage.

Murnan Shipbuilding Corporation, 836 Commercial Trust Building, Philadelphia, Pa.

No stoppage.

National Shipbuilding Co., Orange, Tex.

September 24, 1917, strike at Yellow Pine Paper Mill which furnishes steam to above company; duration, three days; cause, not stated; settled by arranging to furnish own steam.

Newburgh Shipyards (Inc.), Newburgh, N. Y.

No stoppage.

Newcomb Lifeboat Co., Hampton, Va.

No stoppage.

New Jersey Shipbuilding Co., Gloucester, N. J.

November 21, 1917, 51 common leborers struck; duration, three days; cause, wage and hour question; settled by men returning to work at old wage scale.

November 21, 1917, plumbers (number not stated) struck; duration, three days; cause, demanded an additional hour of pay; settled by men returning to work at old wage scale.

Newport News Shipbuilding & Drydock Co., Newport News, Va.

May 29, 1917, to June 4, 1917, 420 men (classifications not stated) struck; duration, six days; cause, wage question; settled by increase effective May 29, 1917.

New York Shipbuilding Corporation, Camden, N. J.

No stoppage.

Nilson & Kelex Shipbuilding Corporation, Seattle, Wash.

No stoppage.

North Carolina Shipbuilding Co., Morehead City, N. C.

No stoppage.

Patterson-McDonald Shipbuilding Co., Seattle, Wash.

No report.

Peninsula Shipbuilding Co., Portland, Oreg.

September 15, 1917, to October 23, 1917, 575 men struck (classifications not stated); duration, 30 days; cause, wage question; settled by wage adjustment board.

Pennsylvania Shipbuilding Co., Gloucester, N. J.

No report.

Portland Ship Ceiling Co., Portland, Me.

No report.

Potomac Shipbuilding Co., Colorado Building, Washington, D. C.

No stoppage.

Pusey & Jones Co., Wilmington, Del.

October 7 to October 11, 1917, inclusive, 250 boat-yard men struck; duration, four days; cause, not stated; settlement not stated.

Riebolt, Wolter & Co. Shipbuilding, Sturgeon Bay, Wis.

No stoppage.

Rodgers, Geo. F. & Co., Astoria, Oreg.

No stoppage.

Saginaw Shipbuilding Co., Saginaw, Mich.

No report.

Sanderson & Porter Plant, Raymond, Wash.

The report from this company is as follows: "No direct stoppage, but delayed by lumber and sawmill strikes in July, August, and September, 1917."

Sandy Point Shipbuilding Corporation, Sandy Point, Me.

No stoppage.

Seaborn Shipyards, Seattle, Wash.

No report.

Seattle Construction & Drydock Co., Seattle, Wash.

July 29, 1917, to August 3, 1917, 300 men (classifications not stated) struck; duration, five days; cause not stated; settlement not stated.

September 14, 1917, to October 22, 1917, 275 men struck (classifications not stated); duration, 34 days; cause, 8-hour day demanded; settled and strike declared off.

September 29, 1917, to October 22, 1917, 3,200 men struck (classifications not stated); duration, 20 days; cause, wage question; settled by Wage Adjustment Board.

This further statement appears in connection with the date, duration, number of men involved, etc.: "October 28, November 4, November 11, 2,000 men each (duration of working days lost, 6,000)."

Shattuck, L. H. (Inc.), Manchester, N. H.

No stoppage.

Ship Construction & Trading Co., 50 Broadway, New York City.

No report.

Skinner & Eddy Corporation, Seattle, Wash.

No report.

Sloan Shipyard Corporation, Seattle, Wash.

August 1, 1917, 350 men (classifications not stated) struck; duration, three days; cause, wage question; settled by Wage Adjustment Board.

November 1, 1917, 400 men (classifications not stated) struck; duration, nine working days; cause, wage question; settled by Wage Adjustment Board.

Smith & Sons Co., Baltimore, Md.

No report.

Sommarstrom Shipbuilding Co., San Francisco, Cal.
September 15, 1917, to October 16, 1917, 48 men struck (classifications not stated); duration, 30 days; cause, wage question; settled by Wage Adjustment Board.
Southern Dry Dock & Shipbuilding Co., Orange, Tex.
No stoppage.
Standard Shipbuilding Co., New York City.
No report.
Standifer, G. M., Construction Corporation, Vancouver, Wash.
September 15, 1917, to October 22, 1917, 173 men struck (classifications not stated); duration, 33 days; cause, wage question; settled by Wage Adjustment Board.
Staten Island Shipbuilding Co., Port Richmond, N. Y.
July 31, 1917, to August 31, 1917, 1,000 men struck (classifications not stated); duration, 30 days; cause, wage question; settled by increase in wages.
St. Helens Shipbuilding Co., St. Helens, Oreg.
June 1, 1917, 60 men struck (classifications not stated); duration, 4 days; cause, wage question; settlement not stated.
September 15, 1917, 20 men struck (classifications not stated); duration, 75 days; cause, wage question; settled by wage adjustment board.
Submarine Boat Corporation, New York City.
October 15, 1917, 15 plumbers and roofers of subcontractors struck in sympathy; job manner and finished open shop.
November 6, 1917, 50 pile drivers struck; duration, 6 days; cause, sympathy; settled by men returning to work under former conditions.
Sun Shipbuilding, Chester, Pa.
No stoppage.
Supple & Ballin, Portland, Oreg.
September 15, 1917, to October 23, 1917, 450 men struck (classifications not stated); duration, 34 days; cause, wage question; settled by wage adjustment board.
Tampa Dock Co., Tampa, Fla.
No stoppage.
Tampa Engineering Co., Tampa, Fla.
During June, 1917, 300 men struck (classifications not stated); duration, 3 days; cause, wage question; settlement not stated.
Terry Shipbuilding Corporation, Savannah, Ga.
July 26, 1917, 80 per cent of white carpenters struck; duration, 3 days; cause, company would not discharge negro carpenter; settled by men returning to work.
Texas Steamship Co., Bath, Me.
No stoppage.
Toledo Shipbuilding Co., Toledo, Ohio.
No stoppage.
Todd Dry Dock and Construction Corporation, Tacoma, Wash.
No stoppage.
Union Bridge & Construction Co., Morgan City, La.
No stoppage.
Universal Shipbuilding Co., Houston, Tex.
No stoppage.
United States Maritime Corporation, Brunswick, Ga.
No stoppage.
Western Pipe & Steel Co., San Francisco, Cal.
September 15, 1917, 95 men struck (classifications not stated); duration, 15 days; cause, wage question; settled by wage adjustment board.
Willamette Iron and Steel Work and Northwest Steel Co., Portland, Oreg.
No stoppage.
Wilson Shipbuilding Co., Astoria, Oreg.
September 15, 1917, to October 23, 1917, 153 men srtuck (classifications not stated); duration, 35 days; cause, wage question; settled by wage adjustment board.
Wrights Shipyards, Tacoma, Wash.
August 23, 1917, 40 men struck. (This is the full report.)
York River Shipbuilding Corporation, West Point, Va.
No stoppage.

Senator HARDING. Is it not a fact that every controversy has been one of wage?

Mr. STEVENS. Practically every one, yes. Of course, I would like to point out that the difficulties of this labor situation are far beyond the power of any one department to deal with. For instance, the Navy has large contracts outstanding, a great many of them on the cost plus basis; the Army has contracts for supplies of various kinds that run into the billions; the Shipping Board Fleet Corporation has enormous contracts out. Those different departments are all drawing more or less from the same classes of labor. If contractors who have Army contracts at the cost plus 10 per cent advance wages much above those which prevail in that district or prevail in our shipyards, they would draw men from our shipyards and disrupt our business; on the other hand, if we should advance wages in the shipyards substantially above those in the navy yards and in the munition plants, we would interfere with other important Government work. There must be worked out some uniform labor policy for all war work, and that matter has been under serious consideration by the different departments and is being considered now by the Council of National Defense. We realize that we can not deal with our labor problem alone without crossing wires and interfering with and running into other departments.

Senator JONES. Ought not the Department of Labor handle all that?

Mr. STEVENS. That is a rather serious question.

Senator JONES. You ought to have some one at the head of that, ought you not?

Mr. STEVENS. There should be some central policy and some central administration of that policy. Whether it ought to be left entirely to the Department of Labor is a difficult question. For instance, the Shipping Board itself or the Shipping Corporation has a great deal more power in the situation than the Department of Labor has. The men who go out from the Department of Labor to act as mediators in a strike have no authority and power over either of the parties to the controversy. The Shipping Board, when it undertakes to mediate a labor difficulty, does have a pretty complete control over one of the parties to the controversy.

Senator JONES. And certainly you ought to use your power in conjunction with the central authority?

Mr. STEVENS. Yes.

Senator JONES. I do not mean that the central authority ought to be entirely decisive.

Mr. STEVENS. I think myself it should be done by cooperation of the various departments and the Department of Labor.

Senator NELSON. Mr. Stevens, if you will allow me, what would you have to suggest to remedy the labor situation for the future so that we can expedite the shipbuilding? What remedy do you suggest to stop strikes and stop these delays and have the work proceed at fair and reasonable rates?

Mr. STEVENS. On the question of strikes and continuous employment, I doubt very much whether there is any legislation which is required. I think more can be done by voluntary cooperation between the Government, the contractors, and labor than can be done by any form of compulsory arbitration or conscription, and the

efforts which have already been made by our department and other departments——

Senator NELSON. Let me ask you one question: You and I, if we are not too old, could be conscripted for war service and they could make soldiers of us, could they not?

Mr. STEVENS. Yes.

Senator NELSON. If the country has a right to our services as soldiers, would not the country have the right to our services in the shipbuilding industries, too?

Mr. STEVENS. Theoretically that is perfectly sound.

Senator NELSON. Is not that morally so, too, and legally?

Mr. STEVENS. I have no doubt it can be made legally so.

Senator NELSON. Is it not morally so?

Mr. STEVENS. It is morally so and theoretically so. I do not think it is humanly so. There is a great difference of sentiment existing among the people toward military service under compulsion and compulsory labor in private plants, owned by private corporations, and I feel certain of this—no matter what labor difficulties we have had in the past, no matter how many labor difficulties we may have in the future—that we will get more production out of American labor free than we will under any system of compulsion, and I think as a whole the labor men and labor leaders are trying to do their bit in this war.

Senator NELSON. I am glad to hear you say so.

Mr. STEVENS. And I feel about this matter of harmony and feel that the efforts which we have already made—these different agreements for voluntary arbitration—have worked in the short time they have been in effect well enough so that we all have a strong hope and confidence that the general run of difficulties can be settled during the war by these voluntary arrangements between organized labor and the Government.

Senator BANKHEAD. Do all your contracts call for 10 per cent plus?

Mr. STEVENS. No, sir.

Senator BANKHEAD. A great many of them do?

Mr. STEVENS. No, sir; we have very few.

Senator BANKHEAD. You have some, then?

Mr. STEVENS. I do not know how many, but I do not think there are a half dozen 10 per cent contracts now.

Senator BANKHEAD. That is the general rule in these Government contracts, is it not, outside of the shipbuilding, we will say?

Mr. STEVENS. I understand that the Navy contracts are on a 10 per cent plus basis.

Senator BANKHEAD. Are not all these cantonment contracts let on that basis?

Mr. STEVENS. A great many were.

Senator BANKHEAD. What I want to know is this: If you have that clause in your contracts now what difference does it make to the contractor what he pays for labor or material?

Mr. STEVENS. It does not make very much difference. It is an inducement to the contractors to bid up wages.

Senator BANKHEAD. Would he not just as soon pay $5 a day as $4, so far as he is concerned, as he would pay that and get the 10 per cent?

Mr. STEVENS. He would have to pay what he would have to to get the labor. We have let almost no contracts of that kind.

Senator SHERMAN. I understood from Mr. Hurley the other day that you had let none.

Mr. STEVENS. There may have been a very few at first.

Senator SHERMAN. I would like to know definitely whether there have been any or none.

Mr. STEVENS. There are none.

Senator BANKHEAD. I was under the impression from you and Mr. Hurley that you had made contracts of that sort, as everybody else had made.

Mr. STEVENS. I know at the start there was some talk around concerning the board that our contracts would be on cost plus 10 per cent. I know that was immediately abandoned. I think there may have been a few contracts of that kind let.

Admiral BOWLES. We have contracts on the cost plus fee, but none on the straight cost percentage.

Senator CALDER. Is not that the same as cost plus a fee?

Mr. STEVENS. No; there is some difference. In a cost plus 10 per cent the more it costs the more the contractor gets. He not only gets what he pays out, but 10 per cent on the cost of the ship. On the cost plus a fee he gets the same fee no matter what the ship costs. The Government has to pay the labor, which we will suppose is $20,000 a hull. It is almost impossible to get contractors to take a fixed flat amount without any cost plus. If every contractor knew the cost, there might be no limit to where materials and labor would go. The future is so uncertain that the cost plus or cost plus fee or some protection of that kind is necessary.

Senator CALDER. On what basis are the cost plus fee contracts; do you know?

Mr. STEVENS. I do not know. I think our statement will show.

Admiral BOWLES. I will bring the analysis of all contracts here this afternoon; that will show you exactly.

Senator HARDING. We have got on a very interesting question to me here. I want to ask you, first assuring you that we have not been trying to criticize your policy of dealing with the labor situation, but trying to learn something concerning it, and very naturally this committee is just as cordially in favor of a free labor, as you call it, as the board is, but where do you think we are going to arrive, assuming that you allow a 10 per cent bonus to secure continuous labor, and then the collateral industrial strike for the same bonus, and with governmental contracts providing for adjustment with a grant of 10 per cent bonus to the collateral industries, and then somebody collateral to them strikes for the same bonus, where are you going to get with this wage proposition?

Mr. STEVENS. If that went on we would get a pretty general 10 per cent premium. Whether or not it becomes general will depend entirely upon the results that it shows on the Pacific coast, where we have it in effect. If it produces with the same number of men a greater output, it will justify itself: if it does not, it will be dropped. It is an experiment for the present, an attempt to see whether something can not be done to speed up the production.

Senator HARDING. Is this 10 per cent bonus you speak of limited to the Pacific coast?

Mr. STEVENS. It has not been put into effect on the Atlantic coast, to my knowledge, the last I knew of it. You know I have been away down in the chairman's country.

Senator BANKHEAD. Is it not likely, you having put that 10 per cent bonus into operation on the Pacific coast, that your labor on the Atlantic coast will demand the same thing, and why should they not?

Mr. STEVENS. We did not find that labor was at all eager about that bonus.

Senator BANKHEAD. You did not find what?

Mr. STEVENS. We did not find that labor was at all eager about that bonus. That suggestion of a premium was not made by the labor men at all. It was made by our department in an attempt to get greater production. As a rule labor unions are opposed to premiums and bonuses, so I do not think there will be any general demand on the part of labor for that purpose.

Senator BANKHEAD. You could not complain if there was, under the circumstances, could you?

Mr. STEVENS. No; under the circumstances we could not.

Senator CALDER. Could you not say that 10 per cent bonus was to become a general increase after February 1?

Mr. STEVENS. After February 1; yes. There has been quite a little increase in the cost of living since the wage was established.

Senator JONES. This bonus is paid by the Government itself and not by the shipbuilders?

Mr. STEVENS. It is paid, in the first instance, by the shipbuilders and added to the cost of the ship. It is really paid by the Government.

Senator JONES. It is really paid by the Government, and the Government proposed to pay it. The shipbuilders did not propose it, did they?

Mr. STEVENS. No.

Senator JONES. The Government proposed it?

Mr. STEVENS. The Government proposed it.

Senator JONES. And so the Government pays it?

Mr. STEVENS. Yes.

The CHAIRMAN. Ten per cent above a scale agreed on in 1916, I believe?

Mr. STEVENS. They added to the scale of 1916 31 per cent to cover increased cost of living since that date, and then they added a 10 per cent bonus as a special inducement to the men to put in continuous work to speed up production.

Senator NELSON. That means 40 per cent over the 1916 schedule, does it not?

Mr. STEVENS. Yes; it does.

The CHAIRMAN. When has the scale been settled, if settled at all, on the Atlantic coast or brought down to a date later than 1916?

Mr. STEVENS. The conditions on the Atlantic coast are very much different from those on the Pacific coast. You will find some plants that have had agreements for a year; you will find some plants which have not had any agreement at all. There is a constant oscillation of wages up and down the coast. It will be difficult to take any particular time on the Atlantic coast from which to figure.

The CHAIRMAN. How about the Gulf—has there been any trouble there at all?

Mr. STEVENS. The scale of wages on the Gulf has generally been lower than that on the Atlantic or on the Pacific coast, and when the Wages Adjustment Board fixed a scale for the Pacific coast, and when the Navy came out with a new scale for all navy yards, effective November 1, and showing a substantial increase there was evidence of a pretty general demand on the part of labor on the Gulf and elsewhere to get the same wages as were being paid in other parts of the country, and demands have come in from the Gulf.

The CHAIRMAN. From what date to what date have these losses in time occurred, Mr. Stevens? You gave us the number of days. I would like to know from what date to what date.

Mr. STEVENS. That was from the time we went into the war down to just recently, down to date.

Let me make this statement, that the Navy, of course, has navy yards scattered up and down the Atlantic coast from Portsmouth, N. H., to the Gulf. They have been in the habit of having a semi-annual wage-scale adjustment, which was agreed upon by some arbitration board representing the Navy and representing organized labor. Last November the Navy put into effect a new scale in all the navy yards on the Atlantic coast, which was a substantial increase over the old scale then prevailing in the navy yards, and in most instances an increase over the scale of wages prevailing in districts in other industries outside. The Shipping Board had adopted that Navy scale as its scale of wages for the Atlantic coast and notified all contractors that they were at liberty to put in the scale of the nearest navy yard.

Senator HARDING. Do you happen to have at your tongue's end the comparison of that shipbuilding scale with the west coast shipbuilding scale?

Mr. STEVENS. I have not. The navy-yard scale, of course, covered 40 or 50 different skilled trades in the navy yards.

Senator HARDING. In a general way, what is the result of the comparison, if you have that in mind?

Mr. STEVENS. I can not say whether the wage scale adopted on the Pacific coast by the wage-adjustment board was higher than the Navy scale on the Atlantic coast or not. I think it was a little higher; that is my impression.

Senator HARDING. Then they get the 10 per cent for working?

Mr. STEVENS. Yes.

Senator NELSON. Now, Mr. Stevens, what is the total amount in dollars and cents of the building contracts that are outstanding?

Mr. STEVENS I could not say, Senator.

Senator NELSON. Can any of you tell?

Can you, Admiral Bowles, say how many million dollars it would take to pay these contracts outstanding?

(After a pause.)

Senator JOHNSON. While looking for that let me ask you, have you entered into a different agreement with the labor employment on the Pacific coast?

Mr. STEVENS We had an agreement signed by national presidents of all those unions to accept the award of this adjustment board.

Admiral BOWLES. The total amount to about $1,300,000,000.

Senator NELSON. Let me ask you, in connection with that, if I am correct in understanding that only about 19 per cent of the aggregate building contracts are completed, or how many per cent are completed?

Admiral BOWLES That is about right.

Senator NELSON. Then, this 10 per cent bonus amounts to a 10 per cent increase on over $1,000,000,000?

Admiral BOWLES. I should say the total amount of building contracts is $1.300,000,000; labor represents a little more than half.

Senator NELSON. Labor represents a little more than half?

Admiral BOWLES. That would be $650,000,000 for labor.

Senator NELSON. So that your bonus of 10 per cent that you have given them increases the cost of the shipping to the United States upward of $60,000,000; is that correct?

Admiral BOWLES. Sixty-five million.

Mr. STEVENS. If they all get it it does; they won't all get it.

Senator HARDING. They will not all get in six days' continuous work.

Senator CALDER. Most of them will get it?

Mr. STEVENS. We hope that it will increase the number of men who will get in a continuous week's work, but they will not all get it by a good deal.

Senator CALDER. I want to say that I hope they all work six days so they will all get it.

Mr. STEVENS. So do we.

Senator CALDER. That means more ships.

Mr. STEVENS. That will mean more ships.

Senator NELSON. I hope they will work six days and three shifts.

The CHAIRMAN. What have you to say as to the present situation regarding labor? Are there any disturbances pending now or matters of controversy going on?

Mr. STEVENS. Things are going pretty harmoniously now.

Senator JOHNSON. In the contracts you have entered into, do you not provide a mode of settlement of disputes, with a right of appeal and the like?

Mr. STEPHENS. The contracts merely provide that the contractors must obey the instructions which the corporation gives to them concerning labor and the conditions of labor. We have no contract which binds them to accept any arbitration, but, of course, we can always order them to pay whatever an arbitration board decides. Then, we have an agreement directly with the officials of the unions, directly with the Government, with the Shipping Board, and with the Secretary of the Navy that they, on their part, will submit differences to this adjustment board and will work pending its decision and be bound by its decisions. Of course, that agreement has only a moral effect it is good only in so far as the labor union organizations can influence the local men to live up to it.

Senator JOHNSON. It has been made with the various union labor organizations?

Mr. STEVENS. It has.

Senator JOHNSON. And in your opinion it will be kept?

Mr. STEVENS. In general, it will be kept.

Senator JOHNSON. In great degree it solves your difficulties, does it not?

Mr. STEVENS. Yes.

Senator HARDING. Do you say that is an agreement, or is it just a stated policy?

Mr. STEVENS. That is an agreement.

Senator JONES. It does not make any difference to the shipbuilder how much increase you order, because you make good whatever you order him to pay?

Mr. STEVENS. Yes.

The CHAIRMAN. Is there an adequate supply of labor now to enable the yards to run on full time?

Mr. STEVENS. There is some shortage at the present time, but not any real serious shortage.

Senator HARDING. Mr. Stevens, just as a matter of fairness, I want to clear this up a little bit. You say you have an agreement that these matters will be submitted and adjusted with the Government. There are many thousands of Government employees who have the wage question very much in mind just now, and that can not be adjusted, except by an appropriation by Congress which specifically provides the increase of pay, yet you have a contract with the union heads that you can adjust their pay at any time or will take it up and adjust it out of the appropriations you have?

Mr. STEVENS. No; we have this: We have an agreement with the heads of the unions that any disputes concerning wages or conditions of labor that arise between the men and their employers, which can not be settled between the men and the employers, shall be submitted to the decision of an arbitration board. We have that agreement, for instance, with the longshoremen, where the Government is only indirectly interested in what the longshoremen get. We want ships to be handled as quickly as possible. We therefore want no strikes of longshoremen. Hence, we have an agreement with the longshoremen and the ship companies, a three-cornered agreement—the ship companies and the officials of the union agree with the Shipping Board that during the war they will accept the decision of our arbitration board in case of strike.

Senator HARDING. You had a written contract to that effect?

Mr. STEVENS. Yes; signed by the President of the International Longshoremen's Union.

Senator JOHNSON. At your convenience, will you insert that agreement in the record?

Mr. STEVENS. I will put in copies of all our agreements.

(The copies of agreements referred to are here printed in full, as follows:)

AGREEMENT FOR THE ADJUSTMENT AND CONTROL OF WAGES, HOURS, AND CONDITIONS OF LABOR IN THE LOADING AND UNLOADING OF VESSELS ON THE ATLANTIC, GULF, AND PACIFIC COASTS.

For the adjustment and control of wages, hours, and conditions of labor in the loading and unloading of vessels, there shall be created a national adjustment commission, located in Washington, D. C., comprised as follows: One member nominated by the Shipping Board; one nominated by the Secretary of War; one nominated by the International Longshoremen's Association; one nominated by the committee on shipping of the Council of National Defense, to represent the coastwise carriers and to act only in cases involving coastwise service; one nominated by the committee on shipping of the Council of National Defense, to represent carriers engaged in foreign trade, and to act only in cases involving foreign service.

The national adjustment commission shall appoint in each important port a local adjustment commission, comprised as follows: One member to represent the Shipping Board and War Department; one to represent the International Longshoremen's Association, nominated by the International Longshoremen's Association; one to represent the carriers in foreign trade, nominated by the committee on shipping of the Council of National Defense, and to act only in cases involving foreign service; one nominated by the committee on shipping of the Council of National Defense, to represent carriers engaged in coastwise trade. and to act only in cases involving coastwise trade.

The union scale of wages, hours, and conditions in force August 1, 1917, in said port shall be adopted as the basic standard with reference to each such port.

All differences which may arise in any particular port shall be adjusted by the local commission if possible. In case either party is dissatisfied with the decision of the local commission it may appeal to the national commission for a review.

In case of expiration of any agreement as to scale of wages, hours, and conditions now in force, the national commission shall adjust the new scale of wages, hours, and conditions, provided an agreement can not be reached by the employers and the union.

Consideration shall be given to special circumstances, if any, arising after said date of August 1 or after the acceptance of a new scale of wages, hours, and conditions, which may require particular advances in wages or changes in other standards.

In all cases work shall continue uninterruptedly pending the action of any local commission or the decision of the national adjustment commission.

All adjustments of wages, hours, and conditions made by the national commission shall be binding on all parties.

The commission shall adopt rules of procedure and shall construe the meaning of this agreement and any ruling made by it thereunder.

R. B. Stevens.	P. A. S. Franklin.
Newton D. Baker.	D. T. Warden.
William B. Wilson.	Frank C. Munson.
Walter Lippmann.	L. Shearman.
T. V. O'Connor.	H. H. Raymond.
Samuel Gompers.	Ernest M. Bull.

The undersigned employers on the Pacific coast hereby agree to the following modification of this agreement, namely, that any disputes between the employers and employees not settled locally between themselves shall be referred to the national adjustment commission, whose decision shall be final, and accepted by the undersigned, and during the commisson's deliberations work shall continue uninterruptedly.

AGREEMENT FOR THE ADJUSTMENT AND CONTROL OF WAGES, HOURS, AND CONDITIONS OF LABOR IN THE LOADING AND UNLOADING OF VESSELS.

For the adjustment and control of wages, hours, and conditions of labor in the loading and unloading of vessels, there shall be created a central adjustment commission, located in Washington, D. C., comprised as follows: One member nominated by the Shipping Board, one nominated by the Secretary of War, one nominated by the International Longshoremen's Association, one nominated by the committee on shipping of the Council of National Defense to represent the coastwise carriers and to act only in cases involving coastwise service; one nominated by the committee on shipping of the Council of National Defense to represent carriers engaged in foreign trade and to act only in cases involving foreign service; one nominated by the Package Freight Carriers on the Great Lakes and to act only in cases involving service on the Lakes.

The central adjustment commission shall appoint in each important port a local adjustment commission, comprised as follows:[1] One member to represent the Shipping Board and War Department, one to represent the International Longshoremen's Association, nominated by the International Longshoremen's Association; one to represent the carriers in foreign trade, nominated by the committee on shipping of the Council of National Defense, and to act only in cases

[1] It is suggested only three local commissions necessary on the Great Lakes—one to cover Lake Erie, one to cover Lake Michigan, and one to cover Lake Superior.

involving foreign service; one nominated by the committee on shipping of the Council of National Defense to represent the carriers in coastwise trade and on the Great Lakes; one nominated by the Package Freight Carriers on the Great Lakes.

1. The scale of wages, hours, or conditions in force at the various terminals in each port on August 1, 1917, shall be adopted as the standard with reference to each such terminal.

2. All differences which may arise in any particular port shall be adjusted by the local commission having jurisdiction, if possible. In case either party is dissatisfied with the decision of the local commission it may appeal to the central commission for a review.

3. In case of the expiration of any agreement as to the scale of wages, hours, or conditions now in force and provided an agreement can not be reached by the employers and their labor it must be referred to the local commission who shall endeavor to bring about an adjustment; if they are are unsuccessful, the central commission shall adjust the new scale of wages, hours, or conditions.

4. Consideration shall be given to special circumstances, if any, arising after said date of August 1, or after the acceptance of a new scale of wages, hours, or conditions which may require particular change in wages or in other standards.

All adjustments of wages, hours, or conditions made by the central commission shall be binding on all parties.

The central commission shall adopt rules of procedure and shall construe the meaning of this agreement and any ruling made by it thereunder.

SHIPPING BOARD.
SECRETARY OF WAR.
LONGSHOREMEN'S ASSOCIATION.
SHIPPING COMMITTEE.
SECRETARY OF LABOR.
MR. GOMPERS.

MEMORANDUM FOR THE ADJUSTMENT OF WAGES, HOURS, AND CONDITIONS OF LABOR IN SHIPBUILDING PLANTS.

When disputes arise concerning wages, hours, or conditions of labor, in the construction or repair of shipbuilding plants or of ships in shipyards under the United States Shipping Board Emergency Fleet Corporation, or under said Shipping Board, or under contract with said corporation or with said board, adjustment of such disputes shall be subjected to an adjustment board of three persons, hereinafter called "the board" to be appointed by the United States Shipping Board Emergency Fleet Corporation, one to represent the said corporation, one to represent the public and to be nominated by the President of the United States, and one to represent labor, the last to be nominated by Samuel Gompers. Two persons shall be so nominated by Samuel Gompers—one from the metal trades to sit when the matter under consideration concerns construction of shipyards or steel ships and one from among the trades primarily concerned to sit when the matter under consideration has reference to wooden hulls. Where such matter concerns wages, hours, or conditions applying to the production of both kinds of ships, only one of the two said nominees representing labor shall sit on said board, the question as to which of such nominees is to sit to be determined between them, or in the event of their disagreement to be determined by Samuel Gompers. When matters concerning any plant or plants are before the board, it shall invite a person representing and designated by the owner or owners of such plant or plants, and also a person representing, or selected by, the majority of the workers in the particular craft or crafts directly interested in the disputed matters, both of said representatives to sit with voting power as associate members of said board in connection with such matters.

If a question coming under the jurisdiction of the board arises with reference to such construction in a private plant in which construction is also being carried on for the Navy Department, the Secretary of the Navy, or such person as he may designate, shall sit with voting power as a member of the board. In the event of a tie vote when the board is so constituted, the decision shall be referred to the chairman of the Council of National Defense or to such person as he may designate. This memorandum shall in no way serve as a precedent for the procedure in Government plants under the War or Navy Departments.

The plants where such construction is being carried on shall be geographically districted by the board. In each district the contractors in whose plants such construction is being carried on, and the representatives of such international labor organizations as have members engaged in such production or construction in such plants and as are selected for the purpose by the labor member of the board, shall be called upon, under conditions to be laid down by it, to agree upon a person or persons who shall act under the direction of the board as examiner or examiners in such district. If the board does not succeed in having an examiner so selected, then the board shall by unanimous action select a person or persons for such position. The examiner shall be subject to removal by the board at any time by unanimous vote. It shall be the duty of the district officer of the United States Shipping Board Emergency Fleet Corporation to report promptly to the board any dispute with reference to wages, hours, or conditions of labor which he is unable to adjust satisfactorily to the principals concerned; but the board will take cognizance of such dispute when information concerning it comes from any source whatsoever. Before the district officer shall refer such dispute to the board he shall confer with the local spokesmen or representatives of such crafts as are involved in such dispute, or with such authorized heads of any local labor organization interested therein as may be designated by the labor member of the board, or, on their request, with the national head or heads of such organization or organizations or his or their duly authorized representative or representatives. When it appears to the board that such dispute can not be so adjusted it will promptly send an examiner for said district to such plant to bring about mutually satisfactory adjusment, the terms of which shall, if they receive the approval of the examiner, be in a report submitted by him to the board for its ratification. If the examiner does not succeed in bringing about such adjustment, he shall in his report to the board recommend terms of adjustment. The board, after due consideration and such investigation as may seem necessary, shall decide the questions at issue.

As basis standards with reference to each plant where such construction is being carried on, the board shall use such scales of wages and hours as were in force in such plant on July 15, 1917, and such conditions as obtained on said dates in such plants. Consideration shall be given by the board to any circumstances whatever arising after such wages, hours, or conditions were established, and which may seem to call for changes in wages, hours, or conditions. The board shall keep itself fully informed as to the relation between living costs in the several districts, and their comparison between progressive periods of time. The decisions of the board shall, under proper conditions, be retroactive, in which case accounting such as may be proper shall be made in accordance with the directions of the board. The decisions of the board will, in so far as this memorandum may be capable of achieving such result, be final and binding on all parties, but at any time after six months have elapsed following such ratified agreement or any such final decision by the board on any question as to wages, hours, or conditions in any plant such question may be reopened for adjustment upon the request of the majority of the craft or crafts at such plant affected by such agreement or decision.

AUGUST 20, 1917.

The above final draft being the same with minor changes as that agreed to by the Secretary of the Navy on August 16 is hereby approved.

F. D. ROOSEVELT,
Acting Secretary of the Navy.

AUGUST 20.

Edward N. Hurley, chairman United States Shipping Board; W. L. Capps, general manager Emergency Fleet Corporation; Jas. O'Connell, president Metal Trades Department, American Federation of Labor; Wm. H. Johnston, president International Association of Machinists; A. J. Berres, secretary-treasurer Metal Trades Department, American Federation of Labor.

Approved as approved by the above, August 20, 1917.

Samuel Gompers; Jos. H. Valentine, president International Moulders' Union, per S. G., representing the United Brotherhood of Carpenters and Joiners of America; Theobald M. Guerin, general executive board, first district; John Donlin, president Building Trades Department, American Federation of Labor; Frank J. McNulty, president International Brotherhood of Electrical

Workers, per S. G.; John R. Alpine, president United Association of Plumbers, Gas, Steam, and Hot Water Fitters, etc., per S. G.; Milton Snellings, president International Union of Steam and Operating Engineers, per S. G.; Jas. A. Franklin, president International Brotherhood of Boilermakers, Iron Ship Builders, and Helpers of America, per A. J. B.; Jas. Wilson, president Pattern Makers' League of North America, per S. G.; J. W. Kline, president International Brotherhood of Blacksmiths of America, per S. G.

Submitted as signed, August 25, 1917.

Louis B. Wehle; Wm. W. Britton, president Metal Polishers, Buffers, etc.; International Union of North America, per S. G. (Aug. 27, 1917).

The CHAIRMAN. Have you had anything to do, Mr. Stevens, with the letting of the contracts?

Mr. STEVENS. No, sir; I have not. And that brings me to a matter I am very anxious to speak about. On Wednesday of last week, while I was on my way down to the promised land of Florida, the Washington Post published an article, which you and the other members of this committee have no doubt seen, in which it was stated that the Senate was going to "probe rich ship contracts." It started with this statement [reading]:

The extent to which members of the Shipping Board have awarded rich contracts to personal friends and political associates, regardless of their experience in shipbuilding, will be one of the interesting phases of the investigation of that body which the Senate will begin to-morrow.

I do not know that it is necessary for me to read this whole article, but I should like to read enough of it to show what the particular charge against me personally is. Further on in the article, it says [reading]:

It is the expectation that contracts will also be closely scrutinized in this connection and that this will disclose the awards of contracts to personal friends of members of the Shipping Board.

The impression has been cultivated in Washington that the retirement of Mr. Denman settled the wooden-ship controversy—that no wooden ships are being built, at least on the Atlantic coast. It would appear that this is not so, and the investigation doubtless will bring out the fact that the Shipping Board, through Mr. Raymond B. Stevens, of New Hampshire, its vice president, awarded a large wooden-ship contract about the time that Gen. Goethals was retiring last summer.

The contract was awarded to a New Hampshire construction company in which Robert Jackson, a Democratic politician, has an interest.

Then there is a long article about the contract, stating that it was for $10,000,000 and on a 10 per cent profit basis; that the company had to get all its lumber from the south; that the yard was located in a place where the ships could not be gotten out to sea without rebuilding a draw; and that the ships would probably be junked at the end of the war anyway.

I want to say about that statement that it is a deliberate lie from beginning to end. There is not an accurate statement in it. I was amazed when I saw the article and wondered how any paper could publish an article like that, when the least inquiry on the part of the man who wrote it or the editor of the paper would have disclosed its absolute inaccuracy.

I want, first, to state the method under which contracts have been let by the Emergency Fleet Corporation, during the time Gen. Goethals was there and during the time Admiral Capps was there.

The Shipping Board, neither as a board nor the individual members of it, has had a single thing to do with the awarding of any contract, neither the decision as to who should get a contract nor the terms of the contract. The Shipping Board Emergency Fleet Corporation had sole charge of that matter, and the general manager of the corporation was by the by-laws of the corporation given full power over the affairs and contracts of the company. Gen. Goethals, himself, and his own force, without consulting with the members of the Shipping Board, negotiated every contract that was let while he was president. After they were negotiated by the general—drawn up by his own legal force, which he himself appointed—they were O. K'd by him and sent to the president of the Emergency Fleet Corporation, who happened to be the chairman of the Shipping Board, and they were signed by him as a matter of course, without submission to the Shipping Board as a board or any of the members thereof. That was the practice throughout all the time Gen. Goethals was there and while Admiral Capps was there.

Furthermore, all the other statements in there are inaccurate. I never had seen this particular contract, had nothing to do with the awarding of it or any of the details of it.

Now, I have a letter here from Gen. Goethals himself, which I should like to read and have made a part of the record. It is addressed to me [reading]:

WAR DEPARTMENT,
OFFICE OF THE QUARTERMASTER GENERAL OF THE ARMY,
Washington, December 26, 1917.

HON. RAYMOND B. STEVENS,
United States Shipping Board, Washington, D. C.

MY DEAR MR. STEVENS: My attention has been called to an article in a newspaper relating to a contract let by the Emergency Fleet Corporation to the Mendell Engineering Co., which by inference contains a gross injustice to you. I feel it ought not be allowed to stand uncorrected. As I know the facts perhaps as well as anyone, I am writing this letter to you about it.

The charge in the paper was in substance that the interests in this company were friends of yours and that you awarded this contract to them, and that it was extremely profitable.

While I was general manager, contracts were "awarded" by the Emergency Fleet Corporation organization. You had nothing whatever to do with the awarding of the contracts. I awarded them, O. K'd them, and the officers of the corporation signed them on my O. K. The members of the Shipping Board and the trustees of the corporation took no action whatever in regard to contracts. This applies to the Mendell Co. The contract with them was negotiated and approved by the organization of the Fleet Corporation. The contract was drawn by the law division of the corporation, and it was all settled at the time I ceased to be general manager. When I left, this contract had been O. K'd by me and in the ordinary course of business would have been signed by the president of the corporation. I understand the contract was subsequently approved by my successor, Admiral Capps, and signed on behalf of the corporation.

The contract was "awarded," approved, and O. K'd by me during my administration, and you, as I have before stated, had nothing whatever to do with the contract or any of the negotiations connected with it.

Yours, sincerely,

GEO. W. GOETHALS.

I see there are members of the press present; perhaps a representative of the Post. I hope that paper will at least have the decency to give as much publicity to the truth as it gave to the lie.

Senator NELSON. I ask for information. Is this related to the contract for building ships on the Piscataqua River, in New Hampshire?

Mr. STEVENS. Yes; in New Hampshire.

Senator NELSON. And the yard was to be above a certain bridge?

Mr. STEVENS. Yes.

Senator NELSON. Now, I want to be frank with you. I have nothing against you, and you do not want to take it in that light——

Mr. STEVENS. No, sir; I will not.

Senator NELSON. But it has been whispered around here since I have come here that this contract was let for building ships on the Piscataqua River above that bridge, and that it would be impossible to get the ships out without changing the bridge, and that would involve an expense of $100,000 or more. I have heard that story. I do not want you to think I take any stock in it, but I think it is fair to you to state it to you so you can answer it.

Mr. STEVENS. Yes, sir. I never heard anything about that until I saw it in the Post.

Senator NELSON. I have not read this statement in the Post.

Mr. STEVENS. It so states in the Post. The Post states: "Mr. Jackson has requested the War Department to widen the draw at the expense of the Government." Since I read this article I have got this information about that bridge—that it is true that the draw on the bridge has got to be widened to let the ships out. That was known at the time the contracts were let, and the War Department some time ago ordered the Boston & Maine Railroad, at its own expense, to widen that draw, as an obstruction to navigation; and it is being done, and being done by the railroad at the expense of the railroad.

Senator NELSON. That clears that up. The railroad company is to do that work without any cost to the Government.

Mr. STEVENS. You would think from this article that there had been only one contract let on the North Atlantic coast for wooden ships——

Senator NELSON. Was this a wooden-ship contract?

Mr. STEVENS. Yes. As a matter of fact, there are 6 or 7 in Maine. There is a list of 25 or 30 north of New York, of which this is merely one.

Senator NELSON. Are they not building wooden ships now in Maine?

Mr. STEVENS. Yes.

Senator NELSON. Under Government contracts?

Mr. STEVENS. Yes. I will furnish a list of them here. There are 6 contracts in Maine for wooden ships, let by the Emergency Fleet Corporation.

Senator NELSON. Let that go in at this point.

Mr. STEVENS. I would like to put in a list of the companies having contracts for wooden ships, their plants being located north of Baltimore.

The CHAIRMAN. It will be printed in the record.

(The list referred to is here printed in full, as follows:)

George A. Gilchrest, Thomaston, Me.
Groton Iron Works, Groton, Conn.
Cumberland Shipbuilding Co., South Portland, Me.
L. H. Shattuck (Inc.), Portsmouth, N. H.
Freeport Shipbuilding Co., South Freeport, Me.
Kelly-Spear Co., Bath, Me.
Housatonic Shipbuilding Co. (Inc.), Stratford, Conn.
Sandy Point Shipbuilding Corporation, Sandy Point, Me.

American International Corporation, Philadelphia, Pa.
Newburgh Shipyards (Inc.), Newburgh, N. Y.
Federal Shipbuilding Co., Hackensack River, N. J.
American International Corporation, Philadelphia, Pa.
Bayles Shipyards (Inc.), Port Jefferson, Long Island, N. Y.
Submarine Boat Corporation, Newark, N. J.
American Shipbuilding Co., Buffalo, N. Y.
Atlantic Corporation, Portsmouth, N. H.
Foundation Co., Newark, N. J.
Groton Iron Works, Noank, Conn.
Ship Construction & Trading Co., Stonington, Conn.
Portland Ship Ceiling Co., Portland, Me.
Downey Ship Building Corporation, Williken, Richmond Borough, New York City.
Gildersleeve Ship Construction Co., Gildersleeve, Conn.
Kingston Ship Building Co., Kingston, N. Y.

Mr. STEVENS. It is true that the main timbers in those ships have to be southern pine, but New England has always been a center of the shipbuilding industry, and contracts were let up there because there were men up there who knew how to build wooden ships.

Senator JONES. Will they have to bring timbers for these ships from the Pacific coast?

Mr. STEVENS. Well, the contracts for southern pine timber—the contractors have fallen down in getting the necessary amount, and some timber is being shipped from the Pacific coast. There is a great quantity of Douglas fir, which is the other most valuable wood in shipbuilding.

Senator JONES. It was indicated here in the testimony, I think, of Mr. Piez, or if not, in the testimony of some one else, that these contracts would very likely have to be transferred to the Pacific coast. Do you suppose these Maine contracts will likely have to be transferred to the Pacific coast?

Mr. STEVENS. I do not think so.

Senator JONES. This was on account of timbers that would otherwise have to be brought from the Pacific coast.

Mr. STEVENS. That is the first I have heard of any transfer.

The CHAIRMAN. Probably it referred to contracts lately let, where the ships have not actually been begun.

Mr. STEVENS. I would like to point out that this particular contract, which this newspaper charges I awarded to friends of mine——

Senator JONES. It seems to be clear you had nothing to do with the awarding of that.

Mr. STEVENS. I want to point out that it was not only awarded originally and O. K'd by Gen. Goethals, but it, along with about 25 or 30 other contracts, was awaiting the signature of the president of the corporation when both Mr. Denman and Gen. Goethals left the corporation; and these same contracts, including this one, were O. K'd later on by Admiral Capps and signed by the president of the Emergency Fleet Comporation.

Senator NELSON. And both their successors approved it?

Mr. STEVENS. Yes, sir.

Senator HARDING. Was there any investigation made of the status of wooden-ship building by a Charles M. Inglis?

Mr. STEVENS. Not that I ever heard of.

Senator HARDING. Do you know of any such report on file with the board?

Mr. STEVENS. No.

Senator HARDING. Mr. Chairman—pardon the interruption—I would like to suggest that the board be requested to furnish the committee with a copy of a report on file from Mr. Charles M. Inglis.

Admiral BOWLES. I can furnish it.

The CHAIRMAN. Mr. Stevens, can you agree to furnish that report?

Mr. STEVENS. Yes.

Admiral BOWLES. I will furnish it, Mr. Stevens.

Senator JONES. You can furnish it, whether it is with the board or with the Emergency Fleet Corporation?

Mr. STEVENS. I would like to emphasize a little the fact that the Emergency Fleet Corporation and the Shipping Board have been two separate identities, and that the Shipping Board has not interfered with the management of the Emergency Fleet Corporation.

Senator JONES. And Mr. Inglis may have been acting for the Emergency Fleet Corporation?

Mr. STEVENS. He may. Gen. Goethals selected his own force, his own assistants, scattered throughout the country; he let his own contracts, under a general authority given to him when he came there.

Senator HARDING. Mr. Stevens, we have been given lately the very distinct impression that they are very much one now.

Mr. STEVENS. They are.

Senator HARDING. I hope you won't entirely disillusion us on that.

Mr. STEVENS. No, sir; I will not. They are very much one now. The Shipping Board, of course, owns the stock of the corporation, and the membership of the Shipping Board are the members of the board of directors of the corporation. The only way in which the members of the Shipping Board as directors of the corporation have had anything to do with the shipbuilding program has been on the question of general policy, not at all on the question of the details of private contracts or who should get the contracts.

Senator JONES. The only difference now is that the powers that were formerly vested in the general manager are now vested in the president of the board?

Mr. STEVENS. They are.

Senator NELSON. You have no general manager now as you had before?

Mr. STEVENS. No, sir; we have not.

Senator CALDER. Mr. Stevens, there has been some reference made to the delay in building the wooden ships on the east coast. Do you know whether or not it is a fact that this delay is caused by the increased size of the timber required in the building of the ships over that required by the original plans and the inability to get southern timber of the size called for by the changed plans?

Mr. STEVENS. I understand that the specifications for the wooden ships were changed, and some of the timbers were increased in size. That undoubtedly, like any change in the specifications, has caused delay. I assume probably—and this I get from shipbuilding men—there is no one thing that so much delays the work on a vessel as to have changes made in the specifications. I might say that is something the board never acted upon. I first saw it in the papers. I mean the Shipping Board has attended to its business and the

general policy and left the whole matter of the details of these ships—what the timbers should be, what the specifications should be, and the engines and the power—to the experts in the Emergency Fleet Corporation and has never undertaken to interfere with the details, realizing that a double control of that kind, in details, through a general manager and five members of the Shipping Board, would lead to endless chaos and confusion.

Senator NELSON. It is a wonder it did not lead to something worse.

The CHAIRMAN. You can not state yourself about when these changes took place, Mr. Stevens?

Mr. STEVENS. No, sir; I do not know a thing in the world about them.

Senator BANKHEAD. That is the very question I was going to ask. What time elapsed between the first specifications and the contract under the first specifications and the change in those specifications?

Admiral BOWLES. I am responsible for those changes, Mr. Chairman. I can tell you about that.

Senator BANKHEAD. I am not asking who is responsible. I am asking now what time elapsed.

Mr. STEVENS. Well, sir, Admiral Bowles will——

The CHAIRMAN. That is a very important inquiry, and we will take it up with Admiral Bowles.

Senator BANKHEAD. Very well, then; we will take it up with Admiral Bowles.

Senator NELSON. Has there been any difficulty, Mr. Stevens, in securing material for steel ships?

Mr. STEVENS. There has been some, yes; and some delay originally in getting the necessary material, but that is very much better now.

Senator NELSON. And there has been difficulty in getting a supply of timber for wooden ships?

Mr. STEVENS. Yes, sir.

Senator NELSON. There has been more in proportion, has there not?

Mr. STEVENS. Yes, sir. There is a serious strike on the Pacific coast in the lumber business, which interfered with the delivery of lumber to the yards for a while.

Senator NELSON. I see Secretary Wilson has been trying to fix it up. Has he got it fixed up, do you know?

Mr. STEVENS. No; I do not. The last I heard was that they had hopes.

Senator JONES. You keep in pretty close touch with matters of that kind, do you not?

Mr. STEVENS. Yes, sir.

Senator JONES. But you do not know whether he has had it fixed up or not?

Mr. STEVENS. No, sir.

Senator NELSON. I see Secretary Wilson has returned, but he is sick, confined to his house.

Mr. STEVENS. We have had labor troubles enough of our own——

Senator JONES. The furnishing of timber for the building of your ships is a matter that you are directly interested in?

Mr. STEVENS. We are directly interested, that is true, but so far have not extended our agreement with labor to cover the other industries which are furnishing supplies to the ships, although we expect to do that, but we expect to do that in cooperation with the

other departments which are also interested in those same industries.

Senator NELSON. I remember, Mr. Stevens, reading some time ago—I can not locate the date—that the Government needed a lot of spruce timber for aeroplanes, and they had to get it on the Pacific coast, and there was a strike among the lumbermen, preventing the Government from getting the spruce timber. Do you know anything about that?

Mr. STEVENS. I merely know in a general way that there has been such a strike, and largely, I think, for the eight-hour day and better living conditions. It has been generally reported that the I. W. W. were very active in that strike.

Senator NELSON. I want to ask Mr. Stevens a question. We are all anxious to help you in your work, to help your board and your corporation. Now, is there anything you can suggest that we can do here in Congress to aid you in expediting your work? We want to help you, and you must help us.

Mr. STEVENS. I think, Senator, we need a suitable appropriation and perhaps some additional legislation that will give the Shipping Board both the money and the power to provide the necessary housing. We find in the shipbuilding industry, perhaps more than almost any other, that the difficulty in getting men, the difficulty in keeping men, is due to the unattractive conditions under which most of them have to live. The shipyards have to be located at a place where there is a good place to launch ships, which frequently is not a good place to live.

Senator NELSON. But, Mr. Stevens, suppose we give you a big labor appropriation, what assurance have we poor Senators and Congressmen that you will not make another 10 per cent dip into that appropriation and give another 10 per cent bonus?

Mr. STEVENS. Senator, if our 10 per cent war premium or bonus employment results in a greater output of ships at once, will you feel that we have squandered the money that Congress has given us? If it does not, it will be dropped. It is an experiment——

Senator NELSON. I wish you would keep a record of this 10 per cent business and let us know the effect of it—how much it will increase the men working four days in the week to six-day men and how much more efficiency you get out of them by this bonus. You will agree with me that if you do not produce more efficiency you ought not to give it.

Mr. STEVENS. Yes, sir.

Senator BANKHEAD. Mr. Stevens, while we are talking about bonuses and war premiums, I wish you would tell us the difference between the two—between a bonus and a war premium.

Mr. STEVENS. A bonus is something which the employer gives to the employee to get more out of him. A war premium is an additional inducement which the Government offers labor for a greater output.

Senator BANKHEAD. That is very satisfactory. [Laughter.]

Senator HARDING. Is it not true, as a matter of fact, that a bonus is a premium on a larger output, while the war premium is merely pay for consecrating his time to the Government?

Senator BANKHEAD. Don't you mix this thing up now. [Laughter.]

Senator HARDING. That is worth your thinking about, because in the one case you pay for the delivery of the goods, and in the other case you pay only for the time.

Mr. STEVENS. That is true; there are bonuses which exist in the shipbuilding industry in certain places, based upon piecework, where the man is given the ordinary piece rate for a certain number of rivets, for instance, which is supposed to be the normal amount that a man can drive; and then frequently there is additional pay for every rivet driven over that.

Senator HARDING. You see, Mr. Stevens, organized labor in its representations here in Congress has actually stopped the adoption of efficiency measures and the payment of bonuses for extra production in various governmental departments, so evidently this is quite a different thing; your war premium does not relate to that at all.

Mr. STEVENS. No. Of course we are very certain of this. You will find some men who have been working only four days a week; if that man works six days a week we are certain to get an increased production.

Senator HARDING. I grant that.

Senator NELSON. Is this paid to the individual men?

Mr. STEVENS. Yes.

Senator NELSON. You pay it?

Mr. STEVENS. The corporation pays it and charges it to us.

Senator NELSON. They pay it to the individual?

Mr. STEVENS. Yes.

Senator HARDING. Just one more question in that connection, relating to a matter of policy. The Shipping Board discouraged, in fact stopped, the private production of ships, because you were apprehensive that the excess price paid would result in a demoralization of the business. Does the sanctioning of excess pay on the part of the Emergency Fleet Corporation have that same effect?

Mr. STEVENS. Well, we do not think we are paying excessive wages.

Senator HARDING. Maybe I do not express myself happily—just say higher wages, higher compensation.

Mr. STEVENS. Let me explain. If the Shipping Board is the only owner of ships under contract on the Pacific coast, and it establishes a scale of wages that all the contractors will pay, there is some hope of stability in the labor market and some hope of stopping this continuous shifting from plant to plant. Now, if in that same district we allowed some private American or foreigner to go in and place contracts for steel ships at prices double the prices we pay—because they will pay almost any price for ships—that man would go out and bid up the market for labor and disrupt our whole labor situation on the whole coast. What he paid his men would become the standard for the demands of the men in our own yards.

Senator HARDING. Let us see where we are going to get. You said a while ago that on the first of next February this war premium becomes a permanent wage. Then is it the policy of the Emergency Fleet Corporation, after that becomes a permanent wage, to again pay a bonus to get labor to work six days?

Mr. STEVENS. This 10 per cent war premium was made a permanent thing February 1 in the hope that it would make labor satisfied on the coast, because we knew there had been quite an increase in the cost of living since our wages were made effective. If, as a matter of fact, the result of this war premium in the two months will be in effect a substantial increase in production, the probability is, in my judgment, it would justify the extension of the premium again.

Senator HARDING. That is, another increase?

Mr. STEVENS. Yes, sir.

Senator HARDING. I ask you that question, Mr. Stevens, in perfect fairness, I hope, because it is pretty generally reported throughout the coal-mining sections that one of the difficulties in getting coal produced is that the miners are earning so generously—if I may use that term—that it is difficult to get them to stick to their work like they did under the old scale. I want to know what is going to be the ultimate effect on our various industries, shipbuilding included, if we continue to add to the compensation, as your policy seems to suggest.

Mr. STEVENS. No: I do not think we continually add. We propose in this industry—and the same thing must be adopted in other war work—that during the war the factor which must govern wages is the increase in the cost of living. Ordinarily it is the whole question of demand and supply, and with this tremendous demand for labor in certain industries there would be almost no limit to which wages would go. Now, if we take as the basis of wages the cost of living and make such an increase as the cost of living shows is necessary to preserve the same standard of living, we have got a fair and equitable basis of wages which can not be excessive, and which they ought to receive. Now, if on top of the wage which the cost of living makes necessary we add some kind of premium for continuous output or increased production, that is something in addition to and apart from the ordinary standard wage.

Senator HARDING. But, Mr. Stevens, what makes the cost of living?

Mr. STEVENS. Well, high wages is one of the things, of course.

Senator HARDING. That is the point I am getting at. Where is the end? What is the solution of the thing?

Mr. STEVENS. Of course, high wages is only one of the elements of the increased cost of living.

Senator HARDING. I am not trying to solve the problem; I am trying to get some light on this subject. Where are we drifting?

Mr. STEVENS. Of course, the drift for a long time has been toward higher wages and higher cost of living. We hope the Government policy of establishing prices for certain essential commodities and the Government's policy of trying to get the level of wages for all governmental work uniform and on a basis of the cost of living will have some tendency to keep things more stable and will stop the advance.

Senator NELSON. Mr. Stevens, it seems to me the difference between your board and your corporation and Congress is this: We provide for a tax on excess profits; you give 10 per cent excess profit but do not tax it. Is not that the case?

Mr. STEVENS. No; I do not think that is quite the case. We are not giving 10 per cent excess profit to the contractor; we are offering an extra inducement to labor for extra production.

Senator NELSON. Yes; that is excess profit on labor, is it not?

Mr. STEVENS. Well, if it gets high enough the income tax will slice off a little of it.

Senator NELSON. Let me ask you another question of a more serious character: Can the union men of the country, those that are in unions, supply all the help needed for shipbuilding?

Mr. STEVENS. No.

Senator NELSON. Then it is necessary, in order to secure plenty of help, to recruit people from other sources?

Mr. STEVENS. Yes.

Senator NELSON. And isn't it necessary to keep an open shop, then, so you can use those men, or would you unionize them as soon as you recruit them?

Mr. STEVENS. No. The position we take is this. In that fight of union and nonunion we are neutral; but the union must not insist, during the war, on closing the shop. On the other hand, we say to the employer, "You must not discriminate against the union men or interfere with the men forming a union if they want to."

Senator NELSON. That is the proper course, of course.

Mr. STEVENS. And, as a rule, we find very few union men who want to close the shipyards during the war. The men I have talked with said, "We realize we can not furnish all the men. We want an opportunity to furnish what we can, because we think"—and there is some truth in this—"that, as a rule, the most skilled men in the industry will be found in the union."

Senator NELSON. Are you taking steps to get recruits? I understood you were on the Pacific coast.

Mr. STEVENS. Yes; we are. We have already established some Federal employment agencies under the joint control of the Shipping Board Emergency Fleet Corporation and the Department of Labor. They have a representative and we have one.

Senator NELSON. That covers all branches of the shipbuilding industry?

Mr. STEVENS. Yes.

Senator NELSON. Are you intending to do the same thing on the Atlantic coast?

Mr. STEVENS. On the Atlantic coast. We are getting, first, from every shipbuilder who has a contract with us a statement of the number of men he has at present in every grade of work, the number of men he could immediately put on each grade of work, and the number of men he is able to put on in two weeks, four weeks, six weeks, or eight weeks; so we are first going to get a picture of the demand, and then we are creating the machinery for drawing that demand from other industries and other places.

Senator NELSON. Let me ask you, is there much complaint, if any, among these shipbuilding contractors about the scarcity of labor? Have they any difficulty in operating their plants?

Mr. STEVENS. Most of them say they can use more men. There has been a great deal of stealing from one another. I might say that during the month of December we had reports from 106 shipbuilding

companies showing that during the month of December they would like 20,000 additional men.

Senator NELSON. How many did they have at that time?

Mr. STEVENS. They probably had over 100,000—105,000.

Senator NELSON. That would be an increase of 20 per cent?

Mr. STEVENS. Yes.

Senator BANKHEAD. Mr. Stevens, you have in all something like 150 contracts, have you not?

Mr. STEVENS. Yes; 146.

Senator BANKHEAD. Have you any standard rule in making these contracts as to what amount of the capital required shall be furnished by the contractor?

Mr. STEVENS. No, sir; I do not know. Let me say, as a member of the Shipping Board I do not know what the standard is. I merely knew in a general way——

Senator BANKHEAD. You can find that out for us, can't you?

Mr. STEVENS. Yes; I could. I knew this. I knew that the country had been divided into districts by Gen. Goethals. In each district there was a head office, and when anybody in that district wanted a contract it was first referred to him for investigation and report as to the experience, financial standing, reputation, and ability of the people who wanted the contract.

Senator BANKHEAD. But then you had no definite rule as to the percentage?

Mr. STEVENS. I do not know whether the Emergency Fleet Corporation had or not.

Senator BANKHEAD. You said a while ago you let a contract up on that river in New Hampshire for $10,000,000, I believe?

Mr. STEVENS. No; the newspapers said I awarded a contract. A contract was awarded by the Emergency Fleet Corporation, not for $10,000,000, but for $5,000,000.

Senator BANKHEAD. That is all right; I understand that. Have you any means of knowing how much capital that company had to put into that contract?

Mr. STEVENS. I can find out, but I had nothing whatever to do with awarding that contract, and therefore I do not know a single thing about it.

Senator BANKHEAD. What I would like to know is whether some of these contractors, after investigation as to their financial status and experience and all that sort of thing, have been awarded contracts where the Government puts up practically all the money?

Mr. STEVENS. I do know in a general way that some of the contractors have to have money to build their plants.

Senator BANKHEAD. I know that; I am not objecting to that. What I want to know is what the minimum is, if there is any.

Mr. STEVENS. I do not know.

Senator BANKHEAD. You can find out?

Mr. STEVENS. Yes, sir.

Senator BANKHEAD. Let us know that. I do not put any credence in all these rumors that have been floating around, but it has been suggested that contracts have been awarded where the contractor had no capital, or practically none, and that the Government was putting up the money. I would just like to know how much truth

there is in a report of that sort. I will say, Mr. Stevens, I am inclined to agree with you fully about your bonus plans and your war premiums and all that sort of thing. If you are going to get more ships built and get them built quicker, I think it is going to prove to be a good policy. We may have to pursue it still further, but what I am fraid of is if it does not turn out like you think it will on the Pacific coast and you have to abandon it, you will have the devil to pay out there, if you will pardon the expression. And it is not going to be long, I am afraid, before everybody on the Atlantic coast is going to insist that they are entitled to the same bonus, whether you get the same results or not.

Mr. STEVENS. We have trouble enough either way, whether we do or we don't.

Senator JONES. Mr. Stevens, I understood from you a while ago that you want all the yards on the Pacific coast to be Government yards: that is, doing Government work and under Government control?

Mr. STEVENS. That has been the general policy of the corporation; yes.

Senator JONES. And as I understand, it is the policy of the board to discourage the building up of private shipyards to work on private account?

Mr. STEVENS. In general, that is true.

Senator JONES. And, in general, that will be the policy during the war?

Mr. STEVENS. In general, that is true; there have been some exceptions.

Senator JONES. What exceptions have there been?

Mr. STEVENS. Well, there have been some contracts for wooden ships to private individuals, and I think some foreign craft which have been allowed.

Senator JONES. What size ships?

Mr. STEVENS. About the size the corporation is building—wooden ships.

Admiral BOWLES. It is all in the record.

Senator JONES. I think Mr. Piez said you might encourage something of that kind for ships under 2,500 tons, but would you think it best for the Government to encourage the building of private shipyards on the Pacific coast?

Mr. STEVENS. For private contract?

Senator JONES. For private contract.

Mr. STEVENS. No. If there was a firm there so fixed that they could build the ships, they ought to have a contract from the United States, as the Government, in my judgment, ought to take up the full supply of men and materials that America has got available for ships.

Senator JONES. That will be your policy throughout the war?

Mr. STEVENS. So far as I have anything to do with it, as a member of the board of trustees.

Senator JONES. Has there been any action by the board to encourage the closing of any yard there in order to get that labor to other yards?

Mr. STEVENS. No, sir; not that I know of.

Senator JONES. You would know if anything of that kind were done?

Mr. STEVENS. I think so, yes.

Senator JONES. You would not be in favor of anything of that sort?

Mr. STEVENS. No, sir.

The CHAIRMAN. There might be instances, Mr. Stevens, where your reports would be adverse to a man who wanted to build for the Government. Admiral Bowles, the general manager, might say, "We are unwilling to let a contract to this man because he does not satisfy us that he is strong enough or experienced enough to build ships." In a case like that would you take the position that that man should not engage in building ships for people who want ships to do business on the coast with, particularly if he is below your tonnage?

Mr. STEVENS. If he is below our tonnage and can show that his operations are not going to interfere with ours, why, we have no objection. A good many small industries, building schooners, barges, and smaller craft than we are building, are going on from Maine clear down to the Gulf.

Senator NELSON. You do not interfere with them?

Mr. STEVENS. No.

Senator JONES. Right in line with what the chairman has just asked you, suppose that the president of the Emergency Fleet Corporation now should reject the application of somebody to build a private yard or private shipbuilding. Would the board interfere with that, or entertain any appeal, as you might say, from him?

Mr. STEVENS. It never has. If any man who was turned down made an appeal direct to the trustees, they might act on it. They never have.

Senator JONES. That is what I want to get at—whether your policy would be to interfere with the president of the Emergency Fleet Corporation.

Mr. STEVENS. It has not been; no, sir; from the beginning. We have passed on questions of general policy frequently. I think you will find some resolution of the Shipping Board Emergency Fleet Corporation outlining the general policy to be such as I have just explained, but the actual carrying out of the details of that policy have been referred to the general manager of the corporation, and now to the president of the corporation without interference or suggestion from the board. The board has realized that the control and the carrying out of the policy should be centralized; it can not be scattered.

Senator JONES. The board would not entertain any appeal from a decision of that kind? I wish you would say that you would not.

Senator BANKHEAD. I believe I would say it if I were you, because you would be exactly right.

Mr. STEVENS. We never have, and I do not think we would.

Senator JONES. I wish you would make it a little more positive.

Mr. STEVENS. Well, all right; but I thought of the possibility that some Senator might come to me in behalf of his district [laughter], and while I would be perfectly willing to stand by the President, I should like to go through the form of telling the Senator we would give it careful consideration. [Laughter.]

Senator NELSON. I want to say to you, Mr. Stevens, that from my part of the country there will be no conflict with the board, because we are only engaged in building prairie schooners. [Laughter.]

Mr. STEVENS. I might say we have had no interference; we have had, I think, the most hearty cooperation of Congress in our efforts.

Senator NELSON. I agree with you, Mr. Stevens, that we ought to get all the shipbuilding force we can to work for the Government, regardless of private interests. That is our business and your business.

Mr. STEVENS. That is what we thought you wanted us to do when you gave us the money and the power.

Senator CALDER. Mr. Stevens, have you been furnished with a list prepared by the New York State authorities giving the men in the different trades in that State that registered last spring with the State authorities? I understand the Department of Labor has asked our governor for such a list and that our State has furnished a list to the Department of Labor, free of cost to the Federal Government, with something like 140,000 men that could be utilized for this very purpose. I thought you ought to know that.

Mr. STEVENS. Yes. When the demands have come in and we have received inquiries from shipyards saying they wanted such and such men, in addition to the plans we have had for establishing these agencies, we have immediately transferred their requests to the Department of Labor, which has some Federal employment agencies. Our plan is to work in cooperation with the Department of Labor.

Senator CALDER. This is a little different. In New York State we had a census taken of all labor, and there is in existence a list, obtainable by you and recently given to the Department of Labor.

Mr. STEVENS. That would be very valuable. We work through and with the Department of Labor in that.

Senator HARDING. Mr. Stevens, you have spoken a good deal here about speeding matters up, and expressed the conviction that the excess cost would be well worth expending, and I am quite inclined to agree with you. Now, with that much understood, I want to ask you if quibbling over cost during the past six months had anything to do with delaying the shipping program.

Mr. STEVENS. I think it has had something; yes, sir.

Senator HARDING. It has tended to retard the building program?

Mr. STEVENS. I think it has had some effect that way.

The CHAIRMAN. By "quibbling over cost" do you mean cost of labor, or materials, or what?

Senator HARDING. I am trying to suggest, Mr. Chairman, that there has been such an assumption of individual responsibility in guarding against somebody making a dollar because of the upheaval about profiteering that the program has been stopped by an excess of caution in that direction. That is the thought I had.

Senator JOHNSON. Mr. Stevens, what quibbling has there been about costs?

Mr. STEVENS. I know very little about the details of the quibbling over construction, because it was in the hands of the corporation. I simply know that certain large contracts which were practically brought down to a state nearly ready to close would perhaps drift along for quite a period of time before they were actually closed.

Senator JOHNSON. You have opened a new and rather wide subject, I think, by your response to Senator HARDING, so I would like you, in more detail, to explain what you meant when you responded to him that quibbling over cost had delayed the program. Do you want me to ask you questions in respect to it, Mr. Stevens?

Mr. STEVENS. That is a very wide field, and the details of it were not in my hands at all. I had nothing to do directly with it.

Senator JOHSNON. Well, who quibbled first?

Senator NELSON. I suppose it resolves itself into this: Have there been many applications for contracts that you refused to agree to?

Mr. STEVENS. I know that there have been a great many contracts—a great many people applied for contracts who did not get them. The two things I had particularly in mind—of course it is a subject I would rather other members of the board would go into, because I had nothing to do definitely with it.

Senator JOHNSON. The only reason I went into it at all was because you made the direct answer to the question of Senator Harding. Having gone into that, you leave upon everybody connected with the Shipping Board, don't you see, the odium of having quibbled at costs. Now, if there was only one man or two men or three men that quibbled at cost, I think it ought to be stated, and those who were not responsible for it ought to be relieved of that responsibility.

Mr. STEVENS. When I said "yes" I had in mind two rather important things. Just previous to the time Gen. Goethals resigned he had had under negotiation and consideration for a considerable period of time several very large contracts for the building of fabricated steel ships on a very large scale. These negotiations had got down to pretty near a settling point at the time he resigned. Then the board was reorganized, the Emergency Fleet Corporation was reorganized, and those particular contracts were not actually signed up and completed for from 6 to 8 weeks after the time when Gen. Goethals left. It is not surprising that new men should take some time to become acquainted with so tremendous a subject as that, and there was some reduction in the terms of those contracts below the point at which Gen. Goethals said he was ready to close the contracts.

Senator JOHNSON. Do I understand, then, from your response to the Senator from Ohio, that there were certain contracts ready for signature, and due to the resignation of Messrs. Denman and Goethals those contracts were held up for the period of six weeks or eight weeks thereafter?

Mr. STEVENS. The particular contracts which I refer to now, the contracts for the fabricated steel ships, were not in a form to be O. K'd; I mean there had been merely negotiations about them, but they had not been O. K'd by the general or in form to be signed. It is true there were 25 or 30 contracts which had been completely negotiated and put into shape to be O. K'd by Gen. Goethals, but were not officially signed by the president of the corporation at the time both Mr. Denman and Gen. Goethals left the board.

Senator JOHNSON. And were those contracts, then, held up for eight weeks?

Mr. STEVENS. For six or eight weeks. There was some delay.

Senator JOHNSON. How much delay, please?

Mr. STEVENS. The contracts themselves probably will show.

Senator JOHNSON. Approximately four or five weeks?

Mr. STEVENS. No; two to four weeks.

Senator JOHNSON. Were those the contracts you were referring to in answering the previous questions?

Mr. STEVENS. No; I referred to the fabricated steel contracts.

Senator JOHNSON. And those contracts were delayed, you say, for a period of six weeks or eight weeks?

Mr. STEVENS. Yes.

Senator JOHNSON. Was that as to a question of cost?

Mr. STEVENS. My understanding was it was largely due to the fact that that time was spent largely in the new organization, the new general manager familiarizing himself with those contracts, and the situation, and he reduced somewhat the terms of the contract.

Senator JOHNSON. Were they reduced?

Mr. STEVENS. They were reduced.

Senator JOHNSON. From what priee to what price, please?

Mr. STEVENS. Gen. Goethals appeared before the board of trustees and outlined these contracts just before he resigned, just at the time that trouble came. He stated that he was ready to close those contracts with the various companies on a basis of 6 per cent, on an estimated cost of $150 a ton. It was an agency contract.

Senator NELSON. Six per cent profit on $150 a ton?

Mr. STEVENS. A fee of $9 a ton for building the yard and building the ships as agents for the Government.

Senator JOHNSON. What ultimately were they closed for, please?

Mr. STEVENS. There were quite a number of modifications made in the contract. I think it was 5 per cent, with possibly some other reductions.

Senator HARDING. Would you mind asking him what they pay now per ton?

Senator JOHNSON. Would you mind telling us that, in response to Senator Harding's suggestion?

Mr. STEVENS. On these particular contracts?

Senator HARDING. Yes; if you will.

Senator JOHNSON. For similar contracts, I assume.

Mr. STEVENS. Well, these contracts are on an agency basis, a great many of the other contracts are on a fixed sum. The fixed sum runs to one hundred and sixty——

Senator NELSON. Not on a tonnage basis?

Mr. STEVENS. No; so much per ship.

Senator JOHNSON. Well, is this the matter you referred to when you say because of quibbling on the cost there was some delay?

Mr. STEVENS. One of the things, yes.

Senator JOHNSON. With whom were those contracts, please?

Mr. STEVENS. One was with the Submarine Boat Co.

Senator JOHNSON. Who are the submarine boat companies, generally speaking; who are they?

Mr. STEVENS. Well, I don't know.

Senator JOHNSON. All right; with whom was there any other?

Mr. STEVENS. The other was the International——

Senator JOHNSON. The International Ship Corporation?

Mr. STEVENS. Yes; the American International Corporation. That was a combination of interests made up of the Stone-Webster people and the New York Shipbuilding Co. and some other companies.

Senator JOHNSON. Do you know what other companies?

Mr. STEVENS. I could not tell you the details of that at all.

Senator JOHNSON. The contracts will show?

Mr. STEVENS. I do not know whether the contracts will show the varied interests interested, because I understand they formed a new corporation themselves in which they took the stock.

Senator JOHNSON. Were contracts with any other persons held up in like fashion?

Mr. STEVENS. Those were the two big contracts.

The CHAIRMAN. Was the Merchants' Ship Co. in those contracts?

Mr. STEVENS. My impression is that the general stated to the board of trustees at that time that he had had some negotiations with the Merchants' Fleet Corporation, and that probably he could close some contracts with them later, but that had not been carried on to a point——

The CHAIRMAN. No; I asked about the Merchants' Ship Co.

Senator JOHNSON. Now, who is responsible for that particular delay?

Mr. STEVENS. The new general manager.

Senator JOHNSON. And that was who?

Mr. STEVENS. Admiral Capps.

Senator JOHNSON. Let me ask you another question in that regard. Was not your corporation familiar with exactly what the Shipping Board was doing with respect to those contracts?

Mr. STEVENS. The corporation?

Senator JOHNSON. Yes.

Mr. STEVENS. Admiral Capps during the time he was with the corporation had the same power that Gen. Goethals had, and he did not report to the Shipping Board; he conducted his negotiations as he saw fit.

Senator JOHNSON. To whom was it that Gen. Goethals made the report just prior to his departure, that these contracts were ready for signature, or negotiation, if you term it so?

Mr. STEVENS. To the members of the Shipping Board.

Senator JOHNSON. So that they were all familiar with the facts, were they not?

Mr. STEVENS. They were, the old board.

Senator JOHNSON. Was there any discussion among them, or between them and Admiral Capps as to the delay that was occasioned in the signing of those contracts?

Mr. STEVENS. Three members of the board left—Mr. Denman, Mr. Brent, and Mr. White—a majority of the board; and the general manager, Gen. Goethals, and part of his force left. We had a new organization.

Senator JOHNSON. Well, to which organization was it that the general made this report on the eve of his departure—to the new board or to the old board?

Mr. STEVENS. To the old board.

Senator JOHNSON. Were you present at the time he made the statement?

Mr. STEVENS. I was.

Senator JOHNSON. Was it a matter of discussion among any of you subsequently?

Mr. STEVENS. It was never a matter of formal discussion by the board.

Senator JOHNSON. Was there ever any endeavor, so far as you are aware, to have Admiral Capps hasten?

Mr. STEVENS. No effort made on these fabricated steel ships, no interference with his plans, whatever.

Senator JOHNSON. Were there any communications that passed between you with reference to these particular ships or with reference to any contracts you thought delayed?

Mr. STEVENS. As to the 30 contracts which had been O. K.'d by Gen. Goethals and completed, and were awaiting the signature of the President, there was a vigorous effort made on the part of the two members of the old organization who remained to have those contracts officially signed and the work proceed without any delay?

Senator JOHNSON. That effort took what form, if you please?

Mr. STEVENS. Took the form of interviews.

Senator JOHNSON. Were there any written communications which passed between you?

Mr. STEVENS. I think not.

Senator JOHNSON. And the two members of the board that remained, who thus undertook to hasten the work, were who?

Mr. STEVENS. Mr. Donald and myself. I might say that the day on which these resignations were accepted, Gen. Goethals came to Mr. Donald and me and called our attention to the fact that here were a lot of completed contracts which had not yet been officially signed. There was no one with the power to sign them, both the chairman and vice chairman having resigned, and at his suggestion we had a meeting that night and reorganized and got a vice president, so that the work which the general's organization had completed might proceed without delay.

Senator JOHNSON. And that vice president was elected that very night?

Mr. STEVENS. Yes.

Senator JOHNSON. And who was it, please?

Mr. STEVENS. Mr. Donald.

Senator JOHNSON. When you approached Admiral Capps during the time these were being held up or delayed and vigorously asked him to hasten, what was his response?

Mr. STEVENS. Most of these contracts were for wooden ships on the Atlantic coast, and the admiral stated that he was much afraid that the lumber would not be available for so many ships, and that until he could be satisfied that there was a sufficient supply of lumber to justify starting to work he did not feel as if the contracts ought to be O. K'd. They were finally O. K'd and mostly reduced in number.

Senator JOHNSON. Did you gentlemen take issue with him in that view?

Mr. STEVENS. Well, of course, I did not know the details of the lumber situation at all in the South. I felt that as many of these companies had got to build a plant first and some of these ships under contract were not going to be completed for 18 months, we might

take some chance on being able to supply the lumber possibly later.

Senator JOHNSON. Did you protest in relation to the lumber for the fabricated ships, any of you, at any time, so far as you were aware?

Mr. STEVENS. No, sir.

Senator JOHNSON. Why did you not?

Mr. STEVENS. Because the board, during the time Gen. Goethals was there and during the time Admiral Capps was there, while it passed on general policies and authorized a program of spending money for wooden ships or steel ships, did not interfere with the details of any contract; it left to the general manager the complete power of working under those contracts and deciding the details, and it had to be so. I mean if five members undertook to get well posted enough on individual contracts to be butting in and trying to act on them or trying to tell the general manager what he ought to do, it would be certain to lead to worse results than doing nothing.

Senator JOHNSON. Well, were you familiar with the points of difference in respect to the contracts for the fabricated ships?

Mr. STEVENS. After Admiral Capps came in and took up the work I knew nothing about the negotiations as to what the details were or why they were not made quicker or what changes there were. They were not reported to the board at all.

Senator JOHNSON. Prior to the advent of Admiral Capps had you been familiar with the fact that negotiations were pending for these fabricated ships?

Mr. STEVENS. Gen. Goethals appeared before the board and made a statement a day or two before his resignation.

Senator JOHNSON. He made the statement in order that you might be familiar with the situation and have the contracts hastened, did he not?

Mr. STEVENS. He made the statement because he had been requested to make it by the chairman of the board.

Senator JOHNSON. Has not one of the sources of delay been the desire of everybody to reach the highest man in authority and the hesitancy to delegate the power to do things in the Emergency Fleet Corporation?

Mr. STEVENS. I could not say about that.

Senator JOHNSON. Then, to be perfectly fair to you in view of the questioning, was not a very considerable part of the delay in completing requisitions or commandeered ships due to the controversies over differences in cost after they were taken over by the Shipping Board?

Mr. STEVENS. I think probably there was some delay—not some delay over the normal production, but perhaps not as much expedition, not as much increase in expedition, possibly due to some delay over settling the terms under which the Government would take over those ships that were building for private accounts. For instance, our own contracts provide that the Emergency Fleet Corporation shall bear all increases in wages which are authorized. Now, the companies that had ships building for private accounts, of course, wanted to know where they got off on advances in wages; and as long as the increased expense for more wages fell upon the contracting company it was not in a position to speed up by going out and employing a lot more men. It would be in a position where

it would try and reduce expenses, to get along with as few as possible. We know that labor in a shipyard that is running on two shifts is always more costly than one shift, because the night shift of men is more expensive. I do not think there has been any delay in the production of these ships above the normal speed at which they were proceeding. I think failure to arrive at a decision concerning who should bear the increased cost of wages may have prevented some increased acceleration in production. There was a matter of general policy to be considered. Is it good policy for the Government to assume all the advances in wages on these commandeered ships? The board passed a resolution in favor of doing it, believing it would get the ships produced a great deal cheaper if that was done.

Senator JONES. Coming back to what Senator Johnson was inquiring about, as I understand it, a day or two before Gen. Goethals went out he appeared before the board with some contracts for wooden ships and some contracts for fabricated ships, which he had O. K.'d. Am I correct?

Mr. STEVENS. No; I think you are a little mixed on that.

Senator JONES. What were those contracts that he explained to the board?

Mr. STEVENS. The contracts that he explained to the board were these several large contracts for the building of several large plants, and the building of fabricated ships strictly for the Government.

Senator JONES. Then they were for fabricated ships?

Mr. STEVENS. Yes.

Senator JONES. And he had O. K.'d those contracts?

Mr. STEVENS. No; they were not in regular form; he merely stated that he had conducted the negotiations and was prepared to close contracts with these firms along certain lines; and the negotiations proceeded to a point where he was ready to close and put it in writing.

Senator JONES. Well, what were these contracts that had his O. K. that were turned over to Admiral Capps?

Mr. STEVENS. Those were contracts that Gen. Goethals' organization had been carrying on negotiations for for weeks and even months. Many of these contractors lived a long ways from Washington, and the contractor would be O. K'd and sent off and when it got back Mr. Denman signed it as president of the corporation—he signed all those contracts as a matter of course—they were never referred to the board, and never held up by Mr. Denman.

Senator JONES. I did not understand that. I understood the procedure; but I understood he appeared before the board to explain some contracts he had O. K'd; but it seems that is not the case.

Mr. STEVENS. No.

Senator JONES. As I understand, however, there were certain contracts he had O. K'd?

Mr. STEVENS. That is true.

Senator JONES. And went over to Admiral Capps?

Mr. STEVENS. Yes.

Senator JONES. And those were contracts that he had O. K'd and sent out to the contractors and they came back after he had resigned?

Mr. STEVENS. Yes.

Senator JONES. And that is how they happened to be turned over to Admiral Capps?

Mr. STEVENS. Yes; this Mendell contract, which I was accused of having passed out to my friends, was one of the contracts which was not signed officially at the time of the resignations.

Senator JOHNSON. Well, the fact of the matter is, then—in justice to Admiral Capps—that there was not any quibbling over cost that caused any delay?

Mr. STEVENS. I do not get you.

Senator JOHNSON. I say the fact is—from your explanation to Senator Jones—that there was not any quibbling over cost that caused any delay? Pardon me, if I am not plain. You answered Senator Harding directly that quibbling over the cost had caused certain delay in the shipbuilding program. You recall that?

Mr. STEVENS. Yes; as I explained, in my judgment, the delay in signing up these large contracts, and right at the time of the year when time and weather were most favorable for the starting of the yards, that delay, as I understood it, was largely time spent in reducing somewhat the terms of those contracts, although, of course, it is only fair to say that it was an enormous subject, and any man coming in new would require some time to familiarize himself with the situation.

Senator JOHNSON. About how much?

Mr. STEVENS. Well, as originally planned by Gen. Goethals, there were about $300,000,000.

The CHAIRMAN. In other words, it would reduce the cost $300,000,000 on those ships?

Mr. STEVENS. Oh, no; the cost would be reduced between 1 and 2 per cent.

Admiral BOWLES. About 1 per cent on the fee, and about $6 a ton on the ships.

The CHAIRMAN. What percentage of cost would that be?

Admiral BOWLES. That would be between 3 and 4 per cent.

Senator BANKHEAD. I would like to know exactly what you mean by fee?

Mr. STEVENS. The fee meant that the contractor should build the ship and get so many dollars for each ton in the ship, no matter how much it cost to build, the Government paying the price of the material and the labor going into it.

Senator BANKHEAD. That is where the fee comes in?

Mr. STEVENS. That is where the fee comes in.

Senator BANKHEAD. I do not understand it yet.

Senator NELSON. The fee was based on the tonnage of the vessel?

Mr. STEVENS. Yes; it was so much per ton.

Senator JONES. That is, if the vessel cost $200 a ton, the man who built it got 6 per cent of $200, or 5 per cent of $200?

Mr. STEVENS. No; they estimated that the ship ought to cost so much, and they gave him so much—6 per cent, which was $9. If it was more he still got the $9 and no more.

Senator HARDING. If it cost less he got the profit into less cost?

Mr. STEVENS. I think that there was some division if it cost less—that the contractor got some and the Government got some. There was some split between the contractor and the Government in such a case.

Senator JONES. Suppose the estimated cost was $150 a ton, and it actually cost $140 a ton; would he get one-half of that $10 in addition to his $9 a ton?

Mr. STEVENS. I have never seen the contract. I know there was a division of savings made through the efficiency of the organization. If the reduction in the cost of the ship was due to a saving in the price of materials, the Government had it all. If the reduction in the cost of the ship was due to the increased efficiency of the management there was some division.

Senator HARDING. While we are on that, let us clear up that matter. Can you not prompt yourself on that and tell us definitely in regard to that?

Mr. STEVENS. Well, as I said in answer to Senator Johnson, I would prefer to have somebody who is thoroughly familiar with the details to answer that question.

The CHAIRMAN. I think that Mr. Hurley testified that under some of these contracts if the cost of the vessel was reduced—that is, the price was reduced, say, $50 a ton, the contractor would get $25 and the Government would get $25.

Senator NELSON. We will have to take up the several contracts, and in no two cases, I suppose, are they exactly alike.

Mr. STEVENS. They differ——

Senator JONES. You said, in answer to Senator Harding, I think, that you had two matters in mind and you only referred to one of them. What was the other?

Mr. STEVENS. I said there was some official delay in signing up these contracts, which had been completed when Gen. Goethals left.

Senator JONES. That was one thing. What was the other?

Mr. STEVENS. In my judgment there had been some possible loss of possible speeding up due to delay in coming to terms with these contractors where we commandeered ships. I think at the moment that we commandeered the ships if the contractors had been notified that advances in wages hereafter on these contract ships would be borne by the Shipping Board, that we would have gotten more ships built. It would have cost more, but I think we would have gotten more ships.

The CHAIRMAN. There were some changes advocated by Admiral Capps other than the reduction you have spoken of?

Mr. STEVENS. Yes; and I do not want to create the impression that this delay was caused by merely haggling over terms. There were numerous changes made in the contracts. There was, unfortunately a loss of nearly two months' valuable time between the time the General went out—it is impossible to change entirely the organization of a board or corporation which has such important work and not cause some delay in the program, because the new men that come in must spend some time familiarizing themselves with what has been done and what the problems are; that is inevitable.

Senator HARDING. Mr. Stevens, did you answer the question as to how much money was saved in the reduction of the cost of these contracts by Admiral Capps in delay?

Mr. STEVENS. Well, Admiral Bowles said it would figure out, I think, about——

Admiral BOWLES. I should think it would figure out, roughly—it might be about $15,000,000.

Senator BANKHEAD. Before you sit down I would like to ask you a question, and if you do not care to answer it you need not do so. But I would like to ask you if it is not your opinion that this delay in the shipbuilding program is largely due to divided authority and responsibility among those who have control?

Mr. STEVENS. No, sir.

Senator BANKHEAD. You do not think so?

Mr. STEVENS. No, sir.

Senator BANKHEAD. Then what is the necessity for concentrating it in one head recently.

Mr. STEVENS. There was not really divided authority. Gen. Goethals up to the last minute went ahead without any let or hindrance on the part of the Emergency Fleet Corporation. Admiral Capps during the time he was there had supreme authority, and went ahead on his plans without any interference on the part of the Shipping Board or the trustees of the Shipping Board.

Senator NELSON. But no contract was complete in either case until the president of the board had signed it?

Mr. STEVENS. That is true, and the president of the board signed those contracts that were put up by Admiral Capps and Gen. Goethals, as a matter of routine and a matter of course without hesitation. I think Mr. Hurley, if he is here, will bear me out in that.

The CHAIRMAN. I think that has been stated.

Senator HARDING. Without delay?

Mr. STEVENS. Yes, sir. I might say that in my judgment there has not been as much delay in this construction program as the public has the idea. The so-called controversy which arose between Gen. Goethals and Mr. Denman did not up until the final break really interfere with the work of letting and pushing contracts. The general was going right ahead, letting contracts and signing them up and doing the work and making plans.

Senator NELSON. It was largely an academic difference, then?

Mr. STEVENS. It was largely a difference of temperament.

Senator JONES. But a condition even of that kind could not arrive now, could it?

Mr. STEVENS. No; I do not think it could; for everything is harmonized.

Senator JONES. That is one good thing.

Senator NELSON. Do you not think that the greatest thing you have accomplished to make this program effective is in unifying the administration, eliminating the general manager from the program?

Mr. STEVENS. Yes, sir.

Senator NELSON. But the source of your difficulty, the real source of your difficulty, was having two heads, practically, the Shipping Board and the president of the board, who was also president of the corporation, and then a general manager with plenary powers that you gave him in the by-laws?

Mr. STEVENS. Yes; the original by-laws, which were drawn to give Gen. Goethals practically supreme authority, also had a provision that the trustees or the directors elected under the by-laws had the power over the affairs of the corporation, and at any time when the trustees saw fit to do so they could interfere with the general manager.

Senator NELSON. The trustees of the corporation.

Mr. STEVENS. Yes; I think the organization is better now than it has ever been, both theoretically and practically.

The CHAIRMAN. Do you know anything about the American Bureau of Shipping?

Mr. STEVENS. Very little.

The CHAIRMAN. Do you know who the officers are and what its activities are?

Mr. STEVENS. I can not tell you all the officers. I think a man named Steenerson Taylor is at the head of it. Its business is to examine and rate ships for their classification for insurance companies, like Lloyds.

The CHAIRMAN. Do they have anything to do with the designs and specifications of Government ships?

Mr. STEVENS. Yes; I understand the designs for those ships have been submitted to both the American Bureau and Lloyds for their examination and classification, and for the safety and seaworthiness of the vessel.

The CHAIRMAN. Do you know what changes they have suggested in the designs and specifications in the vessels?

Mr. STEVENS. Originally I understood that both Lloyds and the American bureau had approved of the Ferris designs.

Admiral BOWLES. Only the American bureau.

Mr. STEVENS. And I understood later that the American bureau suggested some changes; whether that is true I do not know. Admiral Bowles can explain all about those changes. I am not a ship constructor at all, and have not followed any of the details.

The CHAIRMAN. I thought you could acquaint us with the relations of that body and its transactions with the fleet corporation.

Mr. STEVENS. No; I have not tried to exercise any of the authority of that body.

Senator SHERMAN. When the crew on board ship will not work, what do you call that?

Mr. STEVENS. Mutiny.

Senator SHERMAN. If the fellows that build the ship will not work, what do you call it—an industrial controversy?

Mr. STEVENS. Well, you call that an industrial controversy and also the exercise of an American free-born right to work or not to work.

Senator SHERMAN. So, then, you put a fellow out on the salt sea or out on the battle front and don't back him up?

Mr. STEVENS. Well, it always has been the rule, and always will be the rule, that aboard ship at sea a man must work and the master of a vessel to-day has every power that masters ever had, except to beat a man. The master can put a man in irons, he can put him on bread and water.

Senator SHERMAN. That is abolished in merchant shipping.

Mr. STEVENS. No; a master can do that to-day in the merchant marine if a man will not work.

Senator SHERMAN. The fellow that builds the ship, no matter whether it is an American ship or a ship for the United States Navy, is not subject to any such rules, of course?

Mr. STEVENS. No; that is true.

Senator SHERMAN. That is a part of the American's private rights, to work or not to work?

Mr. STEVENS. Yes.

Senator SHERMAN. And during the period of war—because that is what I am talking about—you would not favor any coercion of the man who builds the ship or makes a cannon or rifle, would you?

Mr. STEVENS. No, I would not; because I am satisfied, Senator, that the American Nation and the American workmen will produce more and do more to win the war under free American conditions than they will under any military compulsion.

Senator SHERMAN. And you think they can work more in four days and do more in four days, and loaf the other two days in the week and leave the shipbuilder alone, and yet you make a soldier work 24 hours a day, seven days a week in the week in France.

Mr. STEVENS. The same men that are at work in American shipyards do not object to being conscripted and sent into the trenches; but I believe that the man who works four days a week voluntarily in the shipyard will drive more rivets than a man who is driving rivets with a bayonet or a rifle at his back.

Senator SHERMAN. What about the fellow making rifles; does the same rule apply to him?

Mr. STEVENS. Yes.

Senator SHERMAN. Then there is one rule for a soldier and sailor and another rule for a member of a labor union?

Mr. STEVENS. No; there is one rule for the soldier and the sailor and a different rule for civilians, and always has been.

Senator SHERMAN. That is the end of it that appeals to Congress. During the time of war, when a civilian is at work in various lines supplying munitions and equipment for the sailors and soldiers, you still think that the same rule ought to apply as in time of peace, that that matter of industrial liberty ought to be preserved?

Mr. STEVENS. Let me say this: In the first place, if you are going to conscript labor, conscript it for Government purposes. Your soldier works for Uncle Sam; your man in the shipyard is driving rivets for the Cramp Shipbuilding Co. or the International Ship Co. or the Submarine Boat Co. He is working directly for a private corporation, which corporation is making a profit, and to say to that workman, "You must work for that company or we will put a bayonet or bullet into you," I don't think will produce results.

Senator SHERMAN. I agree with that, but there are no private shipyards, they are all Government undertakings now.

Mr. STEVENS. They are private yards with Government contracts.

Senator SHERMAN. But there is no such thing as a private contract, even the contracts are commandeered, even the ships on the ways are taken, and in whatever degree of completion they may be.

Mr. STEVENS. Yes; but the plants were not taken; the plants and property were not commandeered; we merely commandeered the contracts—the owners' rights.

Senator SHERMAN. I understand that; but the yards no longer enter into private contracts, do they? The private yards no longer enter into contracts?

Mr. STEVENS. The Government is practically their sole purchaser now.

Senator SHERMAN. And here is this 10 per cent bonus or premium, or whatever it is called. The end of private shipbuilding in this country has come about, except for small shipping—ships under 2,500 tons—and that shipping only to be used in coastwise trade and barge service, inland rivers, and the like. Now with all that, with the demolition of private shipbuilding and contracts and shipbuilding as a private industry, and taking this bonus out of the United States Treasury, money levied by Congress, produced by revenue by the billions, you still think shipbuilding is a private industry, and on account of the principles or law of industrial freedom you do not think Congress would be justified in making any change, although these men are working now on ship contracts practically controlled by the Government, and these industrial workmen are practically on Government contracts, are they not?

Mr. STEVENS. Yes; they are practically on Government contracts.

Senator SHERMAN. Now, would that justify a change?

Mr. STEVENS. I am not arguing the morals of the question——

Senator SHERMAN. I am asking these questions in reference to legislation and the morals of legislation.

Mr. STEVENS. I have one object in view, and I assume that Congress has that one object in view, and everybody else has, and that is how can we produce the most ships?

Senator SHERMAN. That is what I am getting at, too.

Mr. STEVENS. And the number of ships we can produce is going to depend more on labor than any other one thing.

Senator SHERMAN. The fighting we will get will depend on the soldiers and sailors.

Mr. STEVENS. Yes; and I believe that we can produce more ships under free labor than under conscripted labor.

Senator SHERMAN. Suppose we conscript these men that are building ships. The line is only an imaginary one, it is a theoretical one between Government shipbuilding and private shipbuilding, practically there is no distinction. There is no such thing as building ships privately; it is all private work. Now, it being a public undertaking, the building of ships, why are not the workmen in shipyards on the same basis as sailors aboard the ships and our soldiers in the field? Why would not this appeal to Congress? I am talking about the legislative end of it and the morality of legislation, as to making one rule for soldiers and sailors and another rule for somebody else, giving the industrial worker a 10 per cent bonus and four days' work only in the week. Now, appealing to the morality of legislation that Senator Nelson referred to, would it justify a legislator in changing his views on general industrial freedom that relates to private life?

Mr. STEVENS. I think the answer to that question goes a long ways back into history. There is not a sentiment against compulsory military service——

Senator SHERMAN. Then it is a sentiment?

Mr. STEVENS. It is largely a sentiment; yes. The man that is conscripted does not feel that he has been degraded, or that his liberty has been interfered with, because it has been an established method of securing soldiers for generations; but a man does feel that the question of whether he shall work in this yard or that yard or

work for one company or another company, or at these ways or the other ways, is a matter of individual liberty.

Senator SHERMAN. Then, if it be a matter of sentiment, do you not think Congress could well employ itself, and also the public press and individuals on the lecture platform who are doing Chautaqua service that would bring about a public sentiment that would break down that distinction in time of war?

Mr. STEVENS. I think the same amount of energy spent in trying to get the country to accept conscription and trying to get labor to accept conscription—because a large output from labor depends upon having willing labor, and not the driven slave——

Senator SHERMAN. I agree with you on that——

Mr. STEVENS. The same amount of energy spent in advocating conscription, if spent in appeals and education to the common people of this country to show them what this war really means to them, will make them patriotic and make them do the work without conscription.

Senator SHERMAN. Appealing to their sentiment?

Mr. STEVENS. Yes. I do think the Government thus far has not gotten in close enough touch with the workman. I have been out on a number of different cases working toward settling strikes, and I find that if a representative from the Government will go directly to the strikers, and for instance attend a mass meeting of strikers, and tell them about the war and what it means to them, and what the Government wants to do and what the Government expects, and what their relation to the war is, that will do more to settle strikes and increase production than almost anything else.

Senator SHERMAN. I agree with you on that, that is a good side to appeal to; but what about the element that will not work unless you give them the wages and the hours and the conditions of service that they dictate?

Mr. STEVENS. Well, Senator, that element that will not work in my opinion is so small that it would not pay or justify the Nation to adopt a general policy of conscription on that account, simply for the sake of compelling to work the small percentage of troublesome men and I. W. W.'s that make trouble.

Senator SHERMAN. Then why not appeal to the volunteer element for soldiers? We do not raise armies by the volunteer system any more, we draft them. Now, that is a mere matter of sentiment, that the service is volunteer in private life and industrial life; why not legislate by Congress in order to make it as honorable to conscript workmen as to conscript soldiers? What is the difference if you appeal to sentiment?

Mr. STEVENS. I think that sentiment is probably one of the most dominant forces that moves men, and I do not think that you can change a sentiment that has existed for years by legislation.

Senator SHERMAN. We changed the Volunteer system under which the Civil War was fought. But I would not change our present system of conscription, although I voted against it. Now, if we change that by legislation in one case, is not the other case also a proper subject of legislation and appeal to the same patriotic sentiment? This is a matter that appeals to the members of the House and of the Senate, and that is the reason I am asking it. It is not asked in a hostile spirit at all.

Mr. STEVENS. Well, personally I feel that the conscription that would compel men to work in industry would be contrary to every American principle and should be adopted only to save the very life of the Nation; and I think you can do that, that is that you can get the necessary materials and keep the men at work without force.

Senator SHERMAN. In time of peace I have no question about it, but in time of war the rule changes, and we changed the rule as to volunteers, and we now take soldiers and sailors involuntarily and make them engage in a much more difficult and dangerous undertaking and separate them from their families through this service, military and naval service, and we changed that by legislation, and it was a departure from almost a constitutional aversion that the American people were supposed to have an involuntary military service, but they have accepted it—even those who were opposed to it, in my judgment. Now, this is a sentiment for an involuntary industrial service. Do you think if Congress were to pass an act that during the war persons doing industrial service on contracts, directly or indirectly relating to the military or naval forces or instruments of the country, that public sentiment would not be subject to the same conversion?

Mr. STEVENS. I do not think so.

Senator SHERMAN. It would not be regarded as industrial slavery, but as a necessary means of a desired end?

Mr. STEVENS. I do not think it is desirable.

Senator SHERMAN. How many of these men with whom you have come in contact, if there were such a thing as conscription, would mutiny or break the law, any more than those that were drafted into the military or naval service would? Do you think there would be a general uprising of the industrial forces of the country?

Mr. STEVENS. I think there would be.

Senator SHERMAN. Leading to civil war?

Mr. STEVENS. No; I think it would lead to rather——

Senator SHERMAN (interposing). Impaired efficiency?

Mr. STEVENS. No; I think it would lead to rather hasty repeal of the law. I would say that we have had some experience as to that to go upon.

Senator SHERMAN. It might, if Congress was cowardly enough to do that.

Mr. STEVENS. Let me just give you a fact out of history: The English have attempted more or less of conscription; they made it a crime for a man to strike in certain industries. They posted notices announcing that fact all through Wales, where the mines are. Forty thousand, sixty thousand, one hundred thousand miners went on strike; and they would stand there in front of those Government cards and laugh at them. And Lloyd-George himself had to go to Wales and settle that strike, and had to give them an increase in pay. You can not put 100,000, or 500,000, or 1,000,000 or 10,000,000 men in jail; you can not do it.

Senator SHERMAN. That is like Edmund Burke's statement that there is no "method for indicting a whole people"?

Mr. STEVENS. Yes, sir. Now, with the whole sentiment of labor—and on this point the sentiment of labor is unanimous—opposed to conscription, feeling that it is unnecessary, and feeling that it is a

violation of the most fundamental rights they have, I think an attempt to conscript all labor would simply lead, not to disaster and riot, but to the cessation of work on such a large scale that you would have to do something to meet it. But, of course, this is all a matter, more or less, of opinion.

Senator JOHNSON. Well, it is very interesting, and you are doing very well.

Senator SHERMAN. I believe you have stated that England is pretty generally unionized; that it is 80 per cent or upward unionized?

Mr. STEVENS. Yes, sir.

Senator SHERMAN. Do you know the percentage in this country?

Mr. STEVENS. I think it is less than 25 per cent.

Senator SHERMAN. Less than 25 per cent. Then the other 75 per cent of industrial life in its various forms is not unionized?

Mr. STEVENS. Yes, sir.

Senator SHERMAN. So that England has 80 per cent, we will say, of the unionized forces; whereas in this country there is a majority of the open-shop employees in the shipyards, as you have found?

Mr. STEVENS. Yes.

Senator SHERMAN. Is it your observation that in other lines that more or less serve to furnish supplies for shipbuilding the same percentage prevails?

Mr. STEVENS. I think it likely; yes.

Senator SHERMAN. Do you think that it would lead to a very great industrial disturbance if Congress were to make the performance of service in industrial lines compulsory?

Mr. STEVENS. Yes, I do.

Senator SHERMAN (continuing). During the war—I am limiting all of these inquiries to the war?

Mr. STEVENS. I do.

Senator SHERMAN. What would be the nature of the disturbance in the shipbuilding lines, in your judgment?

Mr. STEVENS. I think a great many people would simply stop work.

Senator SHERMAN. Just quit?

Mr. STEVENS. Yes, sir.

Senator SHERMAN. Do you think the 75 per cent that have no trouble on the open or closed shop question would quit work?

Mr. STEVENS. I do.

Senator SHERMAN. All of them together?

Mr. STEVENS. I think a very large per cent of them would stop work just as soon as they had any reason for it.

Senator SHERMAN. Do you think there is any moral distinction between compelling a soldier by draft—or compelling a sailor, we will say—to render involuntary service and compelling the man who builds the ship that the sailor fights on to render involuntary service—any distinction in time of war?

Mr. STEVENS. There is no moral distinction, but there is a real distinction, and I think most of the men feel it. For instance, I would not object at all to being drafted and being sent into the trenches; but I would not like to be told by any official of the United States Government that I had to go to France and drive rivets for the next year, whether I wanted to or not. I think feeling is more or less

implanted in the American people throughout, that in industry there ought to be freedom.

Senator SHERMAN. Do you justify, then, in these controversies over open and closed shop, the picketing and the appeals by the union men to moral sentiment, and sometimes to physical education—to be polite about it—for the promotion of their cause?

Mr. STEVENS. No, I do not. And I might say that there have been comparatively few strikes on the question of the open shop. In nearly every instance where that question has come up the Government has succeeded in getting the issue dropped; and the agreement with them practically provides that there shall be no fight over open shop. In case after case that has arisen I have secured, on the part of the labor unions, an agreement not to raise that issue, or to drop that issue. The strikes have come largely over the question of increase in wages; and when you consider what the increase in cost of living has been since the war came on, it is not at all surprising that there has been this demand for increase of wages.

Senator SHERMAN. There is no controversy or question about that from anyone who knows the situation—and you do know it. You spoke a while ago of the coal miners in England. I have lived in a State that has 100,000 coal miners, and my own State has 20,000 coal miners. All that western soft-coal belt is more or less subject to the miners' union, and they are all a highly organized labor organization; there are a few nonunion operators and a few nonunion mines run by them. But when you take away the soft-coal supply, necessarily you either cause distress or you produce a greater demand for the anthracite coal—so that question is directly related to the war problem.

Suppose the miners all quit in midwinter in the hard-coal region, or in the soft-coal region, or both, what would we do? Where would you get the fuel to navigate or furnish power for those ships which we must have to transport our supplies to Europe?

Mr. STEVENS. I can only refer you to Mr. Garfield, head of the Fuel Administration, upon that question.

Senator SHERMAN. Would we not have to draft them?

Mr. STEVENS. I do not think it will be done. But if that situation should arise it would have to be met in some way; you would either have to temporarily conscript some of the men there or send soldiers there, or send other people; I do not know what you would do.

Senator SHERMAN. We would have to do something.

Mr. STEVENS. Yes; you would have to do something.

Senator SHERMAN. And that is what appeals to Congress. We are facing that problem, and that is the motive for my inquiries.

Senator BANKHEAD. Mr. Stevens, I want to shift this scene and this argument to the subject of agriculture for a moment, and to farm labor.

Mr. STEVENS. I am a farmer myself, Mr. Bankhead.

Senator BANKHEAD. You look a good deal like one. [Laughter.]

Senator NELSON. So am I a farmer.

Senator BANKHEAD. Suppose it should develop in January or February, before the time for the planting of seed, that farm labor in this country was absolutely inadequate and insufficient to raise the necessary foodstuffs to feed our Army and our people, and to feed

our allies—would you think that there would be anything amiss if it should be considered necessary under those circumstances to conscript men to work on farms?

Mr. STEVENS. Well, it might work better south of Mason and Dixon's line.

Senator BANKHEAD. I am not talking about south of Mason and Dixon's line; I am talking about the country as a whole. Everybody has to eat in this country, and everybody has to be clothed in this country, as well as the people south of Mason and Dixon's line.

Mr. STEVENS. I think it would probably take about one man with a gun for every man with a scythe.

Senator BANKHEAD. You do?

Mr. STEVENS. Yes; and there would be considerable——

Senator BANKHEAD (interposing). Why do you think that? Farmers never strike; there is no such thing as a strike among the farmers; they have no sort of an organization of that kind.

Mr. STEVENS. Well, the farmer is not the man who must do the work; what is necessary is the labor of the hired man.

Senator BANKHEAD. I am speaking about the man who has to work on the farm. If it becomes necessary, in order to raise agricultural products so as to provide food for our armies and prevent a famine in this country, do you think that we should have conscription? I am not speaking about the man on the farm now; he is going to work anyhow. I am talking about the loafers; the men who are not subject to conscription, perhaps; there are hundreds of thousands of them in the country. Would you object to the Government, in an emergency of that sort, saying to those people, "You have got to get to work, and produce something that will help to feed these people."

Mr. STEVENS. If you could get a conscription law that would hit only the loafers, I would be in favor of it.

Senator BANKHEAD. Oh, yes.

Mr. STEVENS. But you can not get such a law without applying it to labor generally.

Senator BANKHEAD. Well, apply it to labor generally; it does not need to have any application to farmers, or the men who are engaged on the farms. But it might be necessary to take men who are engaged in outside industries, perhaps. That is the most important thing in this country—to feed the people—it is just as important as ships, or coal, or railroads, or armies; you can not get along without it.

Mr. STEVENS. I think that is true. I think there ought to be some committee on priorities in labor.

Senator BANKHEAD. Well, that is not the question. I wanted to know if you would object to some sort of a law that would force these people to go on the farms and work, if it is necessary in order to produce food; that is what I want you to answer.

Mr. STEVENS. I should be opposed to any form of conscription of labor.

Senator BANKHEAD. Yes; I understand.

Senator SHERMAN. Would you object to conscripting these I. W. W.'s?

Mr. STEVENS. No; but I do not think we should put them in the factories generally. [Laughter.]

Senator SHERMAN. No; I would not put them in the factories.

Senator BANKHEAD. Put them on the farms.

Senator SHERMAN. But put them out on the rock pile, where we could make them build good roads on which to haul our artillery to the front.

Senator HARDING. Mr. Stevens, I was very much interested in your appeal to sentiment. Have you settled any of your difficulties with an appeal to sentiment, or was there always accompanying it a raise of wage?

Mr. STEVENS. It is a good thing to have the two go together.

Senator HARDING. You do not answer my question. Did you settle any difficulties without any advance in wages?

Mr. STEVENS. Yes.

Senator HARDING. How many?

Mr. STEVENS. Well, I can think of one.

Senator HARDING. And how many controversies did you have?

Mr. STEVENS. Quite a good many. I could not figure them up now.

Senator JONES. Was that one that you settled a controversy over wages?

Mr. STEVENS. No; it was a controversy over whether a man should be employed as foreman or not. [Laughter.]

Senator HARDING. A very interesting question.

Senator BANKHEAD. I should like to ask one more question, Mr. Stevens. You stated awhile ago that you have had in operation since last February your 10 per cent bonus on the Pacific coast?

Mr. STEVENS. I did not quite understand your question.

Senator BANKHEAD. I understood you to say awhile ago that you had put in operation the 1st of last February your system of allowing 10 per cent bonus to the men continuously employed?

Mr. STEVENS. No; the bonus system was put in operation about a month ago.

Senator BANKHEAD. I understood you to say it was begun last February.

Mr. STEVENS. No; but it is operative until the 1st of next February; it began during the present month.

Senator BANKHEAD. I knew that the month of February had been mentioned.

The CHAIRMAN. I think this question finally comes back to the farmer, as Senator Bankhead has suggested, because if you raise the wages in all the industries, you will have also to raise the wage on the farm.

Senator BANKHEAD. Of course.

The CHAIRMAN. And that means a higher cost for the product. And then, if you have a board that fixes the prices which the farmer must charge for his product, and it does not fix any other prices, to what will that lead? The farmer will then apparently have to bear the burden after all.

Mr. STEVENS. Well, when I was running for Congress in New Hampshire, that is what I told the farmer he always did.

The CHAIRMAN. Well, I do not know. This, of course, is all rather outside the work of the Shipping Board.

If there are no further questions to be asked Mr. Stevens, we can now proceed with Admiral Bowles.

Senator BANKHEAD. Mr. Chairman, it is now after 5 o'clock; and of course if we begin with Admiral Bowles's statement we ought to proceed with it until we get through. I therefore suggest that we adjourn now until to-morrow afternoon.

Senator HARDING. I think, Mr. Chairman, that the limelight that this committee is turning on the shipping question ought to be kept on, and turned off as soon as we find it convenient to do so. I therefore suggest that we meet at 10 o'clock to-morrow morning and have a three-hour session, ending at 1 o'clock.

The CHAIRMAN. Yes. The funeral of Senator Newlands takes place at 3 o'clock to-morrow afternoon; and we will set a limit of 1 o'clock for to-morrow's session of the committee.

(Thereupon, at 5.15 o'clock p. m., the committee adjourned to meet at 10 o'clock a. m., Thursday, December 27, 1917.)

UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.

THURSDAY, DECEMBER 27, 1917.

UNITED STATES SENATE,
COMMITTEE ON COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 o'clock a. m. in the committee room, Capitol, Senator Duncan U. Fletcher presiding.

Present: Senators Fletcher (chairman), Nelson, Jones, Sherman, Harding, Calder, and Johnson.

Senator NELSON. Mr. Chairman, I submit herewith a list of questions in relation to strikes, etc., and I ask that the Shipping Board be requested to furnish to this committee a statement containing the information called for in these questions.

The CHAIRMAN. Have the members of the committee seen the list of questions?

Senator JOHNSON. Yes; we have seen it. Mr. Chairman.

The CHAIRMAN. In the absence of objection, the Shipping Board will be requested to furnish the information called for in the question list.

(The list of questions referred to is here printed in full, as follows:)

(1) What strikes, or threatened strikes, have there been in the shipbuilding industries, and in those industries furnishing supplies and equipment for ship construction, since the shipbuilding corporation has been organized and in operation?

(2) The yards or places where those strikes, or threatened strikes, have taken place.

(3) The number and class of men involved in each strike, or threatened strike, the nature and character of the controversy in each case, and the duration of the strike, or threatened strike, in each case.

(4) The character, nature, and terms of the settlement or arbitration, effected in each case.

(5) The period and scope of the delay in ship construction occasioned in each case of strike, or threatened strike.

The CHAIRMAN. We will now proceed with Admiral Bowles. Have you any preference as to the order in which you will make your statement, Admiral Bowles?

STATEMENT OF ADMIRAL F. T. BOWLES, MANAGER DIVISION OF STEEL-SHIP CONSTRUCTION, UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.

Admiral BOWLES. I have certain things to put in the record, Mr. Chairman, that have been asked for.

The CHAIRMAN. Very well.

Admiral BOWLES. I have handed in to the committee the reports of Mr. Charles M. Englis on the wooden shipyards that were asked for yesterday. The originals I handed to Senator Harding at his request, and I will now leave these copies [indicating] for the record.

Senator Nelson asked yesterday for a statement of the vessels building in the yards, in which Mr. Hannevig was interested. I have them here.

Senator NELSON. Well, that was not for the record, but simply for my own information.

Senator JOHNSON. May I ask, Mr. Chairman, whether or not the reports that have just been submitted by Admiral Bowles will be printed in the record?

The CHAIRMAN. Yes; they will be printed.

Senator HARDING. I suggest that that question go over until we have an opportunity to examine the reports.

Senator JOHNSON. It was not for that reason that I asked the question, but because various documents were submitted by the Admiral when he was last on the stand, and I do not think they were put in the record at all. There were some that I was looking for in examining the testimony of Saturday last, and I found that they had not been inserted. So I suggest that we pursue one or the other course as to all these documents, either that they all be inserted as a part of the record, or that none be inserted.

The CHAIRMAN. I understood that they were to go in the record.

Admiral BOWLES. I suggested that the contracts be not printed; the other things were all proper to go in the record.

The CHAIRMAN. I think there was something to be added on one or two of the statements; something to be filled in.

Admiral BOWLES. I do not know. I will complete those matters that I left incomplete at the last hearing this morning.

Senator JOHNSON. The clerk of the committee has just informed me, Mr. Chairman, that while I am correct in my statement as to the typewritten copy of the transcript of the record not containing the documents submitted by Admiral Bowles the other day, those documents have been included in the transcript sent to the Government Printing Office, and they will appear in the printed record of the hearings as exhibits.

Senator NELSON. I was just going to suggest that the statements that the admiral submitted at the former hearing and those which he submits to-day be placed all in one group in the final printed record. Would not that be a good plan?

Senator JONES. I was going to suggest that some of those things ought to appear and be read in connection with the statements he made at the time he submitted them.

The CHAIRMAN. Yes; I should think they should go in in the regular order in which they were submitted. The reports just submitted by the admiral can go in the record at this point.

Admiral BOWLES. I intended to say, Mr. Chairman, concerning these reports of Mr. Englis, that they were confidential reports made to me, and it is possible that there may be in them some things with

reference to particular shipyards which might be unwelcome, and therefore——

Senator HARDING (interposing). I thought it better for the members of the committee to see them before they were put in the record, Mr. Chairman. I had no desire to have them put in.

The CHAIRMAN. Perhaps it will be better, then, if we just have them filed with the committee, and the members of the committee can examine the copies which the admiral has furnished, and we can then determine later whether these reports are to go in the printed record.

(The reports referred to were subsequently ordered omitted from this record.)

Admiral BOWLES. Mr. Chairman, I would like to tell the committee that since my last testimony was given there have been three new ships launched, of which I have here [indicating] the record. They are the *Absaroka*, a Fleet Corporation contract vessel, built by Skinner & Eddy, at Seattle, of 8,800 dead-weight tons, which was launched December 22.

Senator NELSON. Is that a steel ship?

Admiral BOWLES. That is a steel ship. Then there are the *Broad Arrow*, built by the New York Shipbuilding Co., Camden, N. J., 12,600 tons, launched December 22; and the *War Unit*, built by the Standard Shipbuilding Corporation, of New York, 7,300 tons, launched December 22.

Senator NELSON. That makes seven vessels, then, with the other four that you mentioned the other day?

Admiral BOWLES. That makes five Fleet Corporation vessels. Two of these were requisitioned ships.

Senator NELSON. Two of those were requisitioned ships; that makes five, then.

Admiral BOWLES. A question was asked, Mr. Chairman, as to the requisitioned vessels that were completed from June 15 to July 10 and from July 11 to August 3, 1917, thereby escaping the requisition service. I have already handed in the list of six vessels for foreign owners, and I now hand in the list of vessels for domestic owners—16 vessels, of a total dead-weight tonnage of 153,187 tons.

The CHAIRMAN. That statement will be inserted in the record at this point.

(The statement referred to is here printed in full, as follows:)

UNITED STATES SHIPPING BOARD,
EMERGENCY FLEET CORPORATION.
Washington, December 22, 1917.

Memorandum for vice president and general manager:

Referring to my memorandum of this a. m. covering foreign vessels which have been completed between June 15 and August 3, 1917, and the statement that further information in regard to American vessels would be furnished by Commissioner Chamberlin, this information has now been received and is given below:

Rig.	Name of vessel.	Gross tons.	Approximate dead-weight tons.	Net tons.	Type.	Length.	Breadth.	Depth.	Where built and owner.
	From June 15 to July 10, inclusive.					*Feet.*	*Feet.*	*Feet.*	
St. s.	Midvale	8,271	12,407	6,564	Freight	580.0	60.0	32.0	Ashtabula, Ohio, Great Lakes Engineering Works.
St. s.	Frank H. Goodyear	8,243	12,365	6,409	do	580.0	60.0	27.9	Ecourse, Mich., Buffalo Steamship Co.
St. s.	Homer D. Williams	7,742	11,613	6,029	do	580.0	60.0	32.0	Lorain, Ohio, Pittsburgh Steamship Co.
St. s.	Pennsylvania	6,666	9,999	5,048	Tank	416.8	56.1	31.1	Quincy, Mass., Texas Steamship Co.
St. s.	Tiger	6,273	9,410	3,832	Freight	410.0	56.0	29.0	San Francisco, Cal., Standard Transportation Co.
St. s.	Torres	4,943	7,415	2,955	Tank	371.5	59.1	26.8	Newport News, Va., Southern Pacific Co.
St. s.	Joseph Cudahy	3,302	4,953	2,027	do	292.3	47.2	26.9	Baltimore, Md., American Italian Commercial Co.
	From July 11 to Aug. 3, inclusive.								
St. s.	W. C. Teagle	10,677	16,016	8,115	Tank	499.1	68.2	28.0	Sparrows Point, Md., Standard Oil Co.
St. s.	Gulf of Mexico	7,807	11,711	4,867	do	467.6	62.7	32.0	Camden, N. J., Gulf Refining Co.
St. s.	Edw. L. Doheny, jr.	7,706	11,559	4,716	do	467.6	62.7	32.0	Camden, N. J., Petroleum Transportation Co.
St. s.	Fredc. R. Kellogg	7,005	10,508	5,192	do	425.8	57.0	31.4	Oakland, Cal., Petroleum Transportation Co.
St. s.	William Green	6,784	10,176	4,218	do	430.0	58.2	33.3	Philadelphia, Pa., Petroleum Transportation Co.
St. s.	Virginia	6,666	9,999	5,048	do	416.8	56.1	31.1	Quincy, Mass., Texas Steamship Co.
St. s.	El Almirante	5,216	7,824	4,055	Freight	364.0	51.2	23.8	Newport News, Va., Southern Pacific Co.
St. s.	Olean	2,783	4,175	1,647	do	299.2	45.2	24.3	Wilmington, Del., Vacuum Oil Co.
St. s.	Kiowa	2,039	3,059	1,263	do	251.0	43.5	20.0	Cleveland, Ohio, Atlantic Gulf & West Indies Steamship Line.

Total, 16 vessels; total approximate dead-weight tons, 153,189.

F. T. BOWLES,
Manager Division of Steel Ship Construction.

Admiral BOWLES. Are there any questions you desire to ask concerning that statement, Senator Johnson?

Senator JOHNSON. No; I simply wanted to examine it.

Admiral BOWLES. With reference to question 3, contained in the committee's resolution of December 20, and with reference to the answer that I presented as to the proportion of work done on each vessel up to the present time, I showed the committee the detailed diagrams upon which the record is kept; but I will now file with the committee a statement showing the percentage of completion of each vessel, both contract and requisitioned, wood and steel, complete. I will file that material in this book [indicating] if that is satisfactory to you, when I have finished my testimony.

The CHAIRMAN. Is there any objection to that statement going in the record?

Senator NELSON. No.

The CHAIRMAN. The statement just submitted will be inserted in the record.

(The statement referred to is here printed in full, as follows:)

SUMMARY OF PROGRESS REPORT.

UNITED STATES SHIPPING BOARD,
EMERGENCY FLEET CORPORATION,
Washington, December 1, 1917.

The following pages are a summary of what has been accomplished in the way of ship construction by the Emergency Fleet Corporation.

Included is a table showing the number of vessels affected by the requisitioning order of August 3, and the present stage of completion.

Also included is a condensed report on each contract for wood, composite, and steel vessels, as of December 1, 1917.

The Emergency Fleet Corporation's shipbuilding program of December 1 was as follows:

Type.	Number.	Tonnage.
Wood and composite	437	1,551,900
Contract steel	527	3,638,400
Requisitioned steel	431	3,056,008
Total	1,395	8,246,308

The percentage of completion on wood vessels does not include the work that has been done by the purchasing division of this corporation in placing orders for equipment, nor is any allowance made for plans, patterns, castings, and machine work which has been furnished for the machinery equipment of these wood hulls.

It must be remembered that the percentages of completion given above do not fairly represent what has been accomplished by the Fleet Corporation. A great number of shipyards were nonexistent previous to the inception of the Emergency Fleet Corporation, and an enormous amount of work has been done in the preparation of these yards to build ships, of which no account is taken in the figures here given.

From a careful review of the situation we anticipate a production of 4,000,000 dead-weight tons of steel ships by this corporation during the year 1918. In addition there will be produced about 1,390,000 tons of wood and composite vessels.

The following contract vessels have been launched:

Contractor.	Number.	Type.	Dead-weight tonnage.	Date.
Grays Harbor	1	Wood	3,500	Dec. 1, 1917
Knise-Banks	1	.....do	3,500	Dec. 15, 1917
Skinner & Eddy	1	Steel	8,800	Nov. 24, 1917
Los Angeles	1	.....do	8,800	Dec. 15, 1917

Of the 379 wood hulls which are under contract, keels have been laid for 166. This means that 44 per cent of the hulls are under construction. One hundred and thirty of the keels which have been laid are in yards which did not exist prior to April 17, 1917.

Ten keels for composite vessels have been laid in yards which were organized after receipt of their contracts with the Fleet Corporation.

Eleven keels have been laid for steel vessels, seven of which are in new shipyards.

PERCENTAGE OF COMPLETION OF COMPOSITE SHIPBUILDING PROGRAM.

UNITED STATES SHIPPING BOARD,
EMERGENCY FLEET CORPORATION,
Washington, December 1, 1917.

Four contracts, totaling 58 composite ships, with dead-weight tonnage of 207,000, have been let. Of these 58 the keels for 12 have been laid.

In every case the contract is for a complete vessel, and the work performed to date represents about 20 per cent of this program.

For three of the four contracts it was necessary to build entirely new shipyards. The work of building these shipyards is not included in the above percentage, but this work has been carried on simultaneously with the preparation of plans and orders for vessels, and the three yards are now practically completed.

PROGRESS ON THE CONTRACT STEEL-SHIP BUILDING PROGRAM OF THE EMERGENCY FLEET CORPORATION.

UNITED STATES SHIPPING BOARD,
EMERGENCY FLEET CORPORATION,
Washington, December 1, 1917.

On December 1, 32 contracts had been placed for steel vessels, totaling 520 ships and 3,638,400 dead-weight tons. Twenty of these 32 contracts have been placed with newly organized shipyards.

Keels have been laid for 11 vessels and the total amount of work done on the hulls and machinery represents 4 per cent of this program.

No credit is given in this percentage for the enormous amount of work done by the Fleet Corporation in preparing these 20 new yards for the building of ships.

PERCENTAGE OF COMPLETION OF WOOD-SHIPBUILDING PROGRAM.

UNITED STATES SHIPPING BOARD,
EMERGENCY FLEET CORPORATION,
Washington, December 1, 1917.

On this date there were 379 hulls, with a total of 1,344,900 dead-weight tons, under contract.

The keels for 166 of these 379 vessels had been laid. This means that construction work had been begun on over 43 per cent of the total wood-shipbuilding program.

The first wood-ship hull, No. 55, building by the Grays Harbor Motor Ship Corporation, was launched December 1.

Actual wood-hull construction work done to this date represents about 9 per cent of the complete wood-hull building program. As in the majority of cases the contracts are for wood hulls only, and do not include machinery installation, no credit is given for designs, materials ordered or received, or work done on any of the machinery equipment.

The percentage of completion on the wood-ship program given above does not fully represent the amount of work done by the Fleet Corporation. In the 72 contracts for wood ships it was necessary to construct an entirely new shipyard in 51 instances. The fact that 166 keels have been laid shows that considerable progress has been made in this respect.

Of these 164 keels, 130 have been laid at yards which did not exist previous to the organization of the Emergency Fleet Corporation.

DECEMBER 17, 1917.

BUILDING PROGRAM PROGRESS.

All requisitioned vessels—Percentage of tonnage completed up to and including Nov. 30, 1917.

Builders.	Number of vessels.	Total dead-weight tons requisitioned.	Total dead-weight tons completed.	Total vessels and dead-weight tons reconveyed.[1]
District No. 1:				
Fore River	9	93,200	49,553	.....
Texas	13	120,300	37,963	.....
Total	22	213,500	87,516	.....
District No. 2:				
S. L. Moore	3	11,800	4,705	.....
Standard	13	94,900	33,288	.....
Staten Island	5	17,500	7,420	.....
Total	21	124,200	45,413	.....

[1] Reconveyed without having been accepted by Emergency Fleet Corporation.

All requisitioned vessels—Percentage of tonnage completed up to and including Nov. 30, 1917—Continued.

Builders.	Number of vessels.	Total dead-weight tons requisitioned.	Total dead-weight tons completed.	Total vessels and dead-weight tons reconveyed.
District No. 3:				
Baltimore	11	67,000	22,918	.....
Bethlehem	9	74,250	31,576	(6) 68,260
Harlan & H	12	70,110	34,759	.....
Newport News	9	87,910	62,570	.....
Pusey & Jones	14	58,800	11,022	.....
Total	55	358,070	162,845	(6) 68,260
District No. 4:				
Tampa	2	7,000	3,325	.....
Merrill-Stevens	1	6,500	.....	.....
Total	3	13,500	3,325	.....
District No. 7:				
Craig	2	6,000	3,660	.....
Hanlon	2	11,000	3,960	.....
Moore & Scott	7	63,500	42,033	.....
Union Iron	23	260,000	113,683	(1) 10,000
Total	34	340,500	163,336	(1) 10,000
District No. 8:				
Albina	6	21,800	9,023	.....
Ames	13	113,900	30,744	.....
Columbia River	10	88,000	17,952	.....
Duthie	12	105,600	34,232	.....
Seattle	12	93,000	28,080	.....
Skinner & Eddy	8	70,600	47,298	.....
Willamette	14	123,200	36,872	(1) 8,800
Total	75	616,100	204,201	(1) 8,800
District No. 9:				
American	33	104,300	74,106	(5) 49,300
Globe	4	14,000	2,135	.....
Great Lakes	30	106,300	48,170	(1) 13,000
Manitowoc	14	48,400	25,534	.....
McDougall-D	9	28,300	9,007	.....
Toledo	9	26,370	16,877	(1) 2,930
Total	99	327,670	175,829	(7) 65,230
District No. 10:				
Chester	28	248,200	62,025	.....
Cramp	9	61,758	28,652	.....
New Jersey	12	60,000	.....	.....
New York	23	184,620	103,633	.....
Pennsylvania	19	194,500	38,655	.....
Sun	16	161,100	65,151	.....
Total	107	910,178	298,116	.....
Summary by districts:				
No. 1	22	213,500	87,516	.....
No. 2	21	124,200	45,413	.....
No. 3	55	358,070	162,845	(6) 68,260
No. 4	3	13,500	3,325	.....
No. 7	34	340,500	163,336	(1) 10,000
No. 8	75	616,100	204,201	(1) 8,800
No. 9	99	327,670	175,829	(7) 65,230
No. 10	107	910,178	298,116	.....
Total	416	2,903,718	1,140,581	(15) 152,290
Reconveyed	15	152,290	.....	.....
Grand total	431	3,056,008	.....	.....

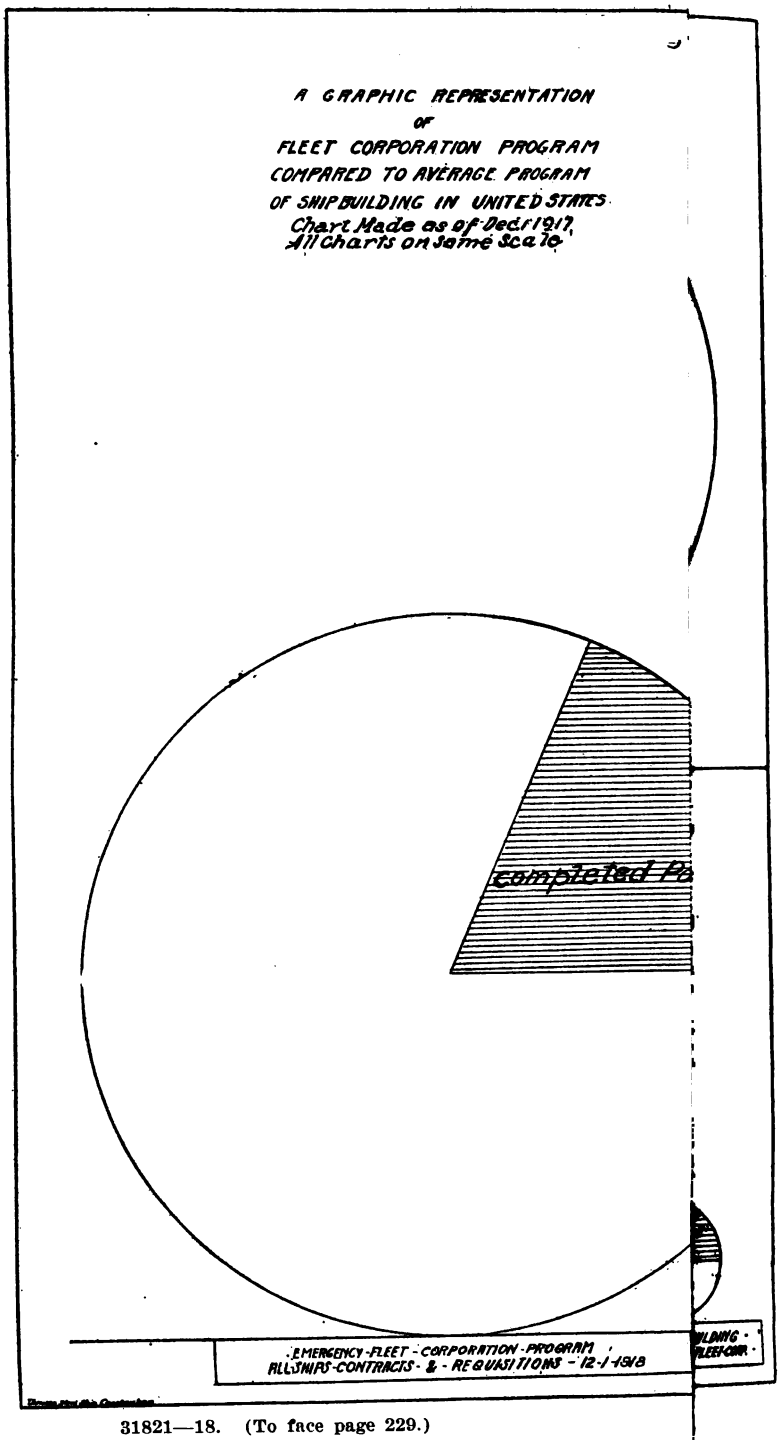
List showing number of keels of requisitioned vessels laid before requisitioning order of Aug. 3, the number of keels laid since that date, and the number of keels still remaining to be laid.

Companies.	Vessels requisitioned.	Before.	Since.	Not laid.
Fore River	9	4	2	3
Texas	13	4	2	7
Moore & Sons	3	3	.....	.....
Standard	13	3	2	8
Staten Island	5	2	1	2
Baltimore	11	3	2	6
Harlan & Hollingsworth	12	5	2	5
Maryland	15	8	3	4
Newport News	9	5	2	2
Pusey & Jones	14	4	1	9
Tampa	2	1	1	.....
Craig	2	2	.....	.....
Hanlon	2	.....	2	.....
Moore & Scott	7	4	3	.....
Union Iron	24	7	5	12
Albina	6	4	2	.....
Columbia	10	3	2	5
Ames	13	4	2	7
Duthie	12	4	2	6
Seattle	12	4	2	6
Skinner & Eddy	8	4	4	.....
Willamette	15	4	3	8
American	38	21	17	.....
Globe	4	1	.....	3
Manitowoc	14	5	2	7
Great Lakes	31	10	6	15
McDougal-Duluth	9	3	3	3
Toledo	10	5	4	1
Chester	28	6	6	16
Cramp	9	4	3	2
New York	23	7	5	11
Pennsylvania	19	6	3	10
Sun	16	4	4	8
Merrill-Stevens	1	.....	.....	1
New Jersey	12	1	3	8
Total	431	158	101	172

Eighty launched.

List of requisitioned vessels for which district officers did not show percentage complete of whole ship for the period ending Nov. 30, 1917.

District number—	Company.	Hull number.	Tonnage.
1	Fore River Shipbuilding Co.	297	14,000
		298	14,000
	Total	2	28,000
1	Texas Ship Co	12	9,500
		13	9,500
		21	9,800
		22	9,800
		23	9,800
		24	9,800
	Total	6	58,200
3	Harlan & Hollingsworth	450	4,500
		451	4,500
	Total	2	9,000
3	Pusey Jones	1,009	4,350
		1,010	4,350
		1,011	4,350
		1,012	4,350
		1,013	4,350
		1,014	4,350
	Total	6	26,100



31821—18. (To face page 229.)

List of requisitioned vessels for which district officers did not show percentage complete of whole ship for the period ending Nov. 30, 1917—Continued.

District number.	Company.	Hull number.	Tonnage.
4	Merrill-Stevens	1	6,500
8	Albina Engine & Machine Works	6	3,800
8	Ames Shipbuilding & Dry Dock Co	12	8,500
8	Columbia River	5	8,800
		6	8,800
		7	8,800
		8	8,800
		9	8,800
		10	8,800
	Total	6	52,800
8	Duthie Shipbuilding Co	11	8,800
		12	8,800
		16	8,800
		18	8,800
		19	8,800
		20	8,800
	Total	6	52,800

Admiral BOWLES. For the information of the committee, I have prepared this diagram [indicating], which I had occasion to show you when I presented my last testimony, but which I was obliged to withdraw because I had included in it a diagram showing the amount of tonnage which it was anticipated would be completed during the year 1918. That I have now eliminated from the diagram, and with the permission of the committee I will put it in the record as it is.

Senator NELSON. That can be printed in the record, too.

The CHAIRMAN. Yes; that can be printed in the record; but it would be very difficult and expensive to reproduce the colors shown on the diagram.

Admiral BOWLES. Well, that can be done by hatching, without being printed in colors.

The CHAIRMAN. Then the diagram will be inserted in the record at this point, with the different colors represented by different kinds of hatching.

(The diagram referred to is here printed in full on facing page.)

Admiral BOWLES. Perhaps the committee would like to have me explain one or two things with regard to this diagram.

The CHAIRMAN. Yes; we will be glad to have you do that.

Admiral BOWLES. In the left-hand corner of the diagram the circle represents in area the total dead-weight tonnage contracted for by the Fleet Corporation, as well as the total dead-weight tonnage of the vessels under requisition building in private yards.

The small circle, showing the average shipbuilding of the United States, represents the average of merchant vessels built in the United States, for both ocean and lake traffic for 15 years. The large circle in the right-hand upper corner of the diagram is 15 times that last; that is, it represents 15 times the average annual production of merchant ships in the United States. And you can see that it is almost precisely the same in diameter as the circle representing the total program of the Fleet Corporation.

Now, within this large circle [indicating] on the right-hand upper corner of the diagram are three dotted circles. The smaller one represents the average tonnage produced for the Navy and the next largest circle represents the tonnage to be produced for the Navy in the year 1917.

Senator NELSON. You mean 1918, do you not?

Admiral BOWLES. No, sir; I mean 1917. The largest dotted circle represents the total authorized tonnage for the Navy at the present time, but we have no information as to when it is to be completed.

These tonnage circles, representing the Navy's program, are converted into dead-weight tonnage by applying the factor to the displacement tonnage, in which all the records of the Navy are kept.

Senator NELSON. Right here let me ask you this question: What is the difference between displacement tonnage, gross tonnage, and dead-weight tonnage? You used the term "displacement tonnage." I have noticed that frequently, but I have never known what displacement tonnage meant.

Admiral BOWLES. Displacement tonnage is the actual weight of the vessel in tons of 2,240 pounds; and for Navy vessels it represents the displacement of the vessel completed, with armor, guns, ammunition, and crews, stores, and fuel—in what is called the normal condition.

Is there any further explanation of the diagram desired, Mr. Chairman?

Senator NELSON. Well, if you care to make further explanation about these other circles in the diagram, we should like to hear about them.

Admiral BOWLES. The smallest circles I explained in my previous testimony. The one in the right-hand corner—the smallest one—represents in area the dead-weight tonnage of composite vessels under construction, and the hatched sector represents the proportion of the work already completed.

The next circle represents the tonnage of wooden vessels under contract, and the hatched portion represents the proportion of the wooden vessels completed.

The next circle (No. 3) represents the dead-weight tonnage of requisitioned vessels building in private yards, and the hatched sector the proportion of that work completed at the present time.

Senator NELSON. That is this one [indicating]?

Admiral BOWLES. Yes, sir; the next one, being fourth from the right-hand corner, represents the tonnage of steel vessels under contract with the Fleet Corporation; and the hatched sector the completed portion of the whole.

Senator NELSON. The next circle?

Admiral BOWLES. The next circle being the one in the left-hand corner represents the total program of the Fleet Corporation; that is, all vessels under contract, both wood, steel, composite, and requisitioned, all added together. And the hatched portion represents the proportion of the work completed in the whole program.

Admiral BOWLES. I promised to submit an analysis of the contracts made with the Emergency Fleet Corporation, each one of which has been submitted; and I now submit this table [indicating], giving a general idea of the classes of contracts used by the United States Shipping Board Emergency Fleet Corporation, with their

salient terms. The summary shows a total of 149 contracts, being 3 more than was shown on the detailed table which I submitted before. These 3 were contracts that were executed since December 20, and the details of those I will supply.

This summary shows that of the total number of 149 contracts 130 are lump-sum contracts; 15 are cost-plus contracts, divided into two groups—one with the guaranteed fee and the other with the sliding scale. There are 4 agency contracts. They total 149.

Now, this table [indicating] gives the principal features of the lump-sum contracts, and mentions the contracts by number that come under this heading, and states whether they are of wood or of steel.

Senator CALDER. Does it state the name of the contractor and the place where the ships are being built?

Admiral BOWLES. That was contained in the list that was submitted by me on the first day that I testified.

Senator JONES. I suggest that you read to the committee the analysis of one contract as an illustration.

Admiral BOWLES. I thought, Senator Jones, that the most interesting analysis would be that of one of the agency contracts. Of course, the lump-sum contracts are comparatively simple. In the majority of lump-sum contracts, the contractor furnishes his own plant. In some cases in these contracts he receives some advance payment to assist him in the completion of his plant. But you will see that the large majority of our contracts are on the ordinary commercial basis.

Senator NELSON. Will you let me ask you a question right there in that connection, Admiral Bowles? What portion of these contracts were made with existing shipyards, and what proportion of contracts involved the building of a shipyard in the first instance—before any work could be done?

Admiral BOWLES. I stated in my previous testimony that the contracts had been placed with 132 different shipyards, of which 36 were old yards and 74 were new yards.

Senator NELSON. To be built—to be constructed?

Admiral BOWLES. Yes; 74 to be new yards to be constructed. Now, I would like to correct my first statement. It was 110 shipyards that our contracts have been placed with. The number 132 comes from including these requisitioned vessels building in other shipyards.

Senator NELSON. Yes. Now, in these 74, you speak of, there was no shipyard in existence; the contract involved the construction of a shipyard in the first instance, did it not?

Admiral BOWLES. Yes.

Senator NELSON. And the Government advanced the money for it?

Admiral BOWLES. In some cases it did, and in some cases it did not.

Senator NELSON. Well, where the Government advanced the money, what was the principle that governed the board? What portion? Did they advance the entire sum needed?

Admiral BOWLES. In some cases the entire sum needed was supplied by the Government, and in that case the cost of constructing the shipyards was limited by the Fleet Corporation and was distributed over the whole cost of the ships.

Senator NELSON. Where were those cases where the whole amount was advanced by the Government? Can you give those localities and places by that?

Admiral BOWLES. This analysis [indicating] will show that.

Senator NELSON. Or, rather, how many were there of these contracts?

Admiral BOWLES. There were very few, and they have been very troublesome.

Senator NELSON. I should think so.

Admiral BOWLES. Would it be agreeable to the committee if I reply to that question at a later time, because it is a very difficult subject.

Senator NELSON. Certainly; I can see that.

The CHAIRMAN. You can insert your answer to that question when the printed proof comes to you.

Admiral BOWLES. I will do so, Mr. Chairman.

(The statement referred to by Admiral Bowles was submitted by Mr. Hurley and will be found printed in full on page 327.)

The CHAIRMAN. Do the lump-sum contracts contemplate the full completion of the ship—the hull, machinery, and everything?

Admiral BOWLES. Not always. The contracts for wooden vessels were let for the hull alone. But this analysis [indicating] will show in every case exactly what was contracted for.

The CHAIRMAN. Where you use the term "completed ship," does that include machinery and everything ready for service?

Admiral BOWLES. Yes.

The CHAIRMAN. Without objection, the statement as to classes of contract used by the Fleet Corporation will be inserted in the record of to-day's hearing.

(The classes of contracts referred to are here printed in full, as follows:)

TABLES GIVING A GENERAL IDEA OF THE CLASSES OF CONTRACTS FOR HULLS AND VESSELS AND OF THEIR SALIENT TERMS.

[NOTE.—The Emergency Fleet Corporation is in all cases referred to as the "owner." In the *agency* contracts, the contractor is referred to as the "agent."]

Table 1.—Classes of contracts.

The contracts are of three general classes, as follows:

		Number.
Lump-sum contracts		130
Cost-plus contracts		15
(*a*) With guaranteed fee	9	
(*b*) With sliding-scale fee	6	
Agency contracts		4
Total		149

LUMP-SUM CONTRACTS.

NUMBER OF LUMP-SUM CONTRACTS.

The lump-sum contract is the type of contract most frequently used. They are as follows:

	Number contracts.
(A) Wood hulls.—Contracts Nos. 7–8, 15–17, 19–21, 24, 27, 35–39, 41, 45, 46, 49–52, 55, 56, 58, 59, 62, 64–72, 74–82, 84–85, 88–90, 96, 148	53
(B) Complete wood steamers.—Contracts Nos. 3 6, 22, 25, 32, 143	6

	Number contracts.
(C) Composite wood and steel steamers.—Contracts Nos. 1, 9, 31, 44	4
(D) Complete steel steamers.—Contracts Nos. 2, 4, 10, 13, 18, 26, 30, 33, 48, 57, 61, 63, 92–95, 97–142, 144–146, 149	66
(E) Steel barge.—Contract No. 42	1
Total	130

In wood-hull contracts the contractor's work is completed when he delivers the wood hull afloat his works.

TERMS IN GENERAL.

(For details, see Table 2.)

Purchase price.—The purchase price is a lump-sum price for the hull or vessel delivered afloat at contractor's works. The price is subject to variations accordingly as there are (*a*) alterations in plans and specifications, (*b*) provisions for the protection of contractor against increase in price of labor and material, (*c*) premiums for expedition and liquidated damages for delay, (*d*) decrease due to waiver of insurance on vessels.

Payments.—The payments are divided into three classes: (*a*) First payments, which are substantially always in the nature of advance payments, and the expenditure thereof is (at the present time) restricted to the construction of vessels only, though in proper cases a proportion thereof may, under suitable restrictions, be permitted to be expended in construction of plant; (*b*) subsequent or progress payments, which are paid as certain stages in the progress of the work are reached; (*c*) final payments, which are paid after acceptance of vessel.

Premium and liquidated damages.—Most of the contracts contain clauses providing for the payment of a per diem bonus or liquidated damages (limited to a specified aggregate per hull or vessel) according as the delivery of the hulls or vessels is advanced or retarded to the scheduled delivery dates.

Plant.—In nearly all of the contracts the contractor himself finances the erection of the plant. In some of the early contracts, the contractor might have used the first payment for this purpose. Under present contracts, the contractor is at times permitted to use part of the first payment for plant construction or extension under restrictions looking to the proper application thereof. Occasionally the owner makes a loan for these purposes against security.

Other general terms.—The contracts contain terms covering deliveries, trials, inspection, alterations, delays due to causes beyond control, insurance, settlement of disputes, title to work in progress and materials, time of essence, precedence to be given to the work under the contract, liens and taxes, claims and patents, control of wages and conditions of labor, Member of Congress clause, prohibition against assignments, forfeiture and right to take over plant if work unsatisfactory, and, in the more recent lump-sum contracts, cancellation if progress of work unsatisfactory, and provisions giving auditors access to contractor's books.

COST-PLUS CONTRACTS.

(*a*) Guaranteed-fee type; (*b*) Sliding-scale fee type.

(A) GUARANTEED-FEE TYPE OF COST-PLUS CONTRACT.

NUMBER OF GUARANTEED-FEE CONTRACTS.

Contracts of this type for wood hulls are Nos. 11, 12, 29, 43, 47	5
Contracts of this type for wood completed vessels are Nos. 5, 23, 34, 40	4
Total cost-plus, guaranteed-fee contracts	9

These were all early contracts, the last one being executed on the 21st of July, 1917.

TERMS IN GENERAL.

(For details see Table 2.)

Purchase price.—The owner pays the cost and a fixed fee. The cost includes the cost of plant or extensions authorized by owner. The fee is guaranteed and limited to a certain sum, usually $20,000 in the case of wood hulls and $40,000 in the case of wooden steamers. In one case, however, in addition to the guaranteed fee, the contractor was allowed any saving under an estimated cost (contract 40).

Plant.—The cost of the constructed plant is included in and spread over the cost of the vessels and the plant so constructed belongs to the owner. Usually the contractor has option to purchase the improvements at an agreed valuation. The establishment of plant or of any additions thereto are within the owner's control. The owner usually (outside the contract) fixes a limit of expenditure on plant to what the owner deems reasonable.

Subcontracts and commitments.—The owner has complete control over all orders and commitments. The orders are given and contracts made by the contractor in the owner's name.

Payments.—Payments are made as follows: (*a*) of items of cost, within 15 days after submission of bills and pay rolls covering approved cost for previous manufacture; (*b*) of fee, within 30 days after acceptance of a hull or vessel.

Bonus and liquidated damages.—One contract of this class (No. 12) has a provision placing a premium upon early deliveries or assessing liquidated damages for retarded deliveries of $200 a day; the total premium or liquidated damages not to exceed $10,000 per hull.

Other general terms.—Contains clauses for audit and examination of contractor's record; otherwise substantially as in lump-sum contracts, except that the cancellation clause is not included.

(B) SLIDING-SCALE FEE TYPE OF COST PLUS CONTRACT.

NUMBER OF SLIDING-SCALE FEE CONTRACTS.

Contracts of this type are as follows: For wood hulls, Nos. 14, 28, 53, 54, 60, and 73; total, 6.

This type of contract was an early type, no contracts of this kind, except Nos. 60 and 73, having been executed since the middle of July and as to those contracts the commitments had been made prior thereto.

TERMS IN GENERAL.

[For details see Table 2.]

Purchase price.—The owner pays actual cost plus a sliding-scale fee.

The contract contains an estimated base cost of each vessel, which may vary according (*a*) to alterations directed by owner; (*b*) to protection on labor and materials. The cost includes the amount expended for plant.

Fee.—The contractor receives a specified normal fee if the estimated cost equals the actual cost.

(*a*) If the actual cost is less than the estimated cost, the fee is increased by one-half of the saving.

(*b*) If the actual cost exceeds the estimated cost, the fee is decreased by the excess to the extent of the normal fee (in other words, until the fee is wiped out).

(*c*) The owner bears any excess of actual overestimated cost plus contractor's normal fee.

Plant.—The amount expended by the owner for plant is spread over all of the vessels. The plant or the additions to the plant, paid for by the owner, belong to the owner. Those paid for by the contractor, generally speaking, belong to the contractor. The contractor usually has the option to purchase the construction or equipment paid for by the owner at an agreed valuation. In some cases all of the plant construction or extension, authorized by the owner, is paid for by the owner; in others (for example, 14, 60, and 73) the amount to be expended on the plant is limited in the contract. Where no limit is named in the contract, the owner imposes a reasonable limit.

Subcontracts and commitments.—The owner has full supervision over subcontracts and commitments.

Payments.—Payments are usually made as follows: Of items of cost, monthly within 15 days after submission of approved bills; of fee, after the acceptance of a hull.

Premium and liquidated damages.—No provision, except in contract No. 60, which provides for a premium of $10,000 per hull if all hulls are delivered before scheduled date—which provision is in lieu of an allowance for certain executive salaries as a part of the cost.

Other general terms.—Same as in fixed-fee type.

AGENCY CONTRACTS.

NUMBER OF CONTRACTS.

These contracts are for fabricated vessels from 5,000 to 9,000 tons D. W. C., with the Submarine Boat Corporation, American International Corporation, the Merchant Shipbuilding Corporation, and the Newburgh Shipyards (contracts 83, 86, 87, 91).

TERMS IN GENERAL.

[For details see Table 2.]

Purchase price.—The owner pays (*a*) cost of vessel; (*b*) agent's fee; and in all of the contracts except 9, (*c*) cost of construction or extensions to plant.

Cost.—Cost includes the rent of real estate (except in contract 91), but does not include executive salaries of the agent. The contract contains an estimated base cost of the vessels to be constructed. This estimated base cost (which does not include cost of plant) is subject to increase or decrease because of the following: (*a*) wages varying from schedule; (*b*) cost of material varying from schedule; (*c*) changes due to alterations; (*d*) compliance with owner's instructions as to wages or conditions of labor; (*e*) decrease if insurance is dispensed with.

Fee.—The agent receives for his services the following compensation:

A normal specified fee if actual cost of vessels equals estimated cost. The normal fee is increased for economies in time or saving cost and decreased (but not below a specified minimum fee) for delays or excess cost.

Plant.—The land is owned by the contractor, except in one case (contract 86) where it is owned by the city of Newark.

Except in contract 91, the plant is constructed at the owner's expense. Where so constructed, the plant belongs to the owner, the owner having the option to purchase the land. The owner has imposed a limit upon the cost of plant in each case. In contract 91, the agent owns the plant. The owner advances $500,000 to extend the plant, takes a mortgage on the plant as security for the repayment of the $500,000 and has the right to deduct the amount so advanced from the agent's fees when and as earned.

Payments.—Of cost: (*a*) Payments are made out of funds deposited by the owner in a trustee account, upon checks countersigned by the owner's representatives. The proper application of these funds is further secured (except in contract 91) by the giving of a bond (either of a surety company or secured by a mortgage on plant). (*b*) Some outside expenses are paid by the owner monthly 15 days after the submission by the agent of approved bills.

Of fee: One-half of the minimum fee is paid as each vessel is half completed; one-half of the minimum fee as each vessel passes a satisfactory trial; the balance of fee, if any, upon the audit of the actual cost per vessel.

Subcontracts and commitments.—The owner has complete control of all subcontracts and commitments and of every detail of the work, and the agent is bound to serve and protect the owner's interests at all times.

Premium and liquidated damages.—Each contract contains a clause increasing or decreasing the fee accordingly as delivery is advanced or retarded.

Extra work.—Owner may use plants (except in 91) to install machinery and equipment in wood hulls, or may make agent do so at agreed price.

Other general terms.—Substantially same as in later lump-sum contracts.

TABLE 2.—*Analysis of salient terms of contracts.*

[The terms analyzed are the financial ones. The "General Terms" referred to in Table 1 are not analyzed.]

OUTLINES OF THE SALIENT CLAUSES IN THE FOUR TYPES OF CONTRACT.

PURCHASE PRICE.

1. IN LUMP-SUM CONTRACTS.

The purchase price is a lump-sum price for the hull or vessel delivered afloat at Contractor's works. The price is subject to variations accordingly as there are (A) alterations in plans and specifications; (B) provisions for protection of Contractor against increase in price of labor and material, or provisions giving the Owner the benefit of any saving; (C) premiums for expedition; liquidated damages for delay; (D) decrease due to waiver of insurance.

A. The Owner may direct the making of alterations in the plans and specifications. These alterations may increase or decrease the cost of construction. The lump-sum purchase price will be increased or decreased accordingly.

B. *Protection on labor and materials:*

(1) Labor.

(a) Substantially all contracts require the Contractor to obey the instructions of the Owner as regards wages and conditions of labor and provide that any increase due to these instructions shall be added to the lump-sum cost.

(b) Many contracts protect the Contractor against increase in wages (not caused by Owner's orders) above certain schedule rates.

(c) Some of the late steel ship contracts protect against increase in wages (not caused by Owner's orders) accordingly as Contractor's profit is reduced thereby to 10% of the contract price or below.

(2) Materials.

(a) Most of the earlier contracts protect the Contractor against advances in the cost of lumber in excess of a certain price.

(b) Some of the contracts protect the Contractor against increases in the price of materials, for example, metal fastenings, oakum, iron bars, etc., above schedule price.

(c) Some few contracts protect the Contractor against increases in freight rates.

(d) In some of the contracts the Owner agrees to supply specified materials and gets the benefit of any saving.

(e) In present steel ship contracts the Owner furnishes the steel at an estimated price, the adjustment for the difference between actual and estimated cost being made in the final payments.

(f) In present steel ship contracts Owner has option to furnish propelling machinery, auxiliaries, boilers, etc., any saving under prices, submitted by Contractor, going to Owner.

(3) In the wood hull contracts executed after the middle of July, the protection upon labor and lumber was only available to the extent that the increase due to the causes provided against brought the cost above a certain figure—usually $265,000 to $275,000 for Ferris-type hulls and $255,000 to $260,000 for Hough-type hulls.

C. *Premium and liquidated damages.*—Most of the contracts contain clauses providing for the payment of a bonus or liquidated damages accordingly as the delivery of the hulls or vessels is advanced or retarded beyond the scheduled delivery dates. The bonus or penalty amounts to $200 per day for wood hulls, but has a specified limit ranging from $10,000 to $15,000 and sometimes $20,000 per hull; for completed steel vessels, it is $300 per day with a specified limit ranging from $15,00 to $25,000 per vessel.

D. *Savings on insurance.*—The contracts require the Contractor to insure the interest of the Owner in the hulls or vessels, materials, and supplies. About the beginning of July the contracts gave the Owner the right to place this insurance directly and the Owner was entitled to any saving under the Contractor's estimate. Later contracts provide that the Owner may waive the insurance, and deduct the saving from the purchase price.

II. IN GUARANTEED FEE TYPE OF COST PLUS CONTRACT.

Purchase price.—The Owner pays the cost and a fixed fee.

Cost.—The Owner pays the actual cost, which includes the cost of plant or extensions authorized by Owner; cost is defined in the contract, following so far as applicable the definition in the Munitions Manufacturers' Tax Law.

Fee.—The Owner pays a fixed fee, which is guaranteed to be a certain sum, usually $20,000 in the case of wood hulls and $40,000 in the case of wooden steamers. In one case, in addition to the guaranteed fee, the Contractor was allowed any saving under an estimated cost (Contract 40).

Alterations.—The owner may alter the plans and specifications. The effect of the alteration, if the parties do not agree, is settled like other disputes under the contract.

Protection on labor and material.—Since the contractor's fee is guaranteed and limited, there is no protection on labor and material.

Premium and liquidated damages.—Only one contract of this class (No. 12) has a provision placing a premium upon early deliveries and liquidated damages for retarded deliveries of $200 a day, not exceeding $10,000 per hull.

III. IN SLIDING SCALE FEE TYPE OF COST PLUS CONTRACT.

A. *Purchase price.*—The owner pays actual cost plus a sliding scale fee, which is increased or diminished as stated.

Cost.—Cost is defined in the contract, following so far as applicable, the definition of cost in the munitions manufacturers tax law. The contract contains an *estimated* base cost which may vary according (a) to alterations directed by owner; (b) to protection on labor and materials similar to that in the lump-sum contracts.

The cost includes the amount expended for plant, which is thus charged to and spread over all of the vessels.

Fee.—The contractor receives a normal fee if the estimated cost equals the actual cost. (a) If the actual cost is less than the estimated cost, the fee is increased by one-half of the saving; (b) if the actual cost exceeds the estimated cost, the fee is decreased by the excess up to the amount of the normal fee (in other words until the fee is wiped out); (c) the owner bears any excess of actual over estimated cost plus contractor's normal fee.

In one contract (No. 73), the contractor gets one-half of the saving up to a certain point and bears any excess beyond that point.

Premium and liquidated damages.—None except in contract 70, where a premium of $10,000 for each vessel delivered before scheduled date is provided for, in lieu of any allowance for certain executive salaries as part of cost.

IV. IN AGENCY CONTRACTS.

The owner pays (A) cost of vessel; (B) agent's fee; and in all of the contracts, except 91, (C) cost of construction or extensions to plant.

A. *Cost:*

(1) Actual cost: The elements of actual cost are defined in the contracts. They include the rent of real estate (except in contract 91), but do not not include executive salaries of the agent.

(2) Estimated cost: The contract contains an estimated base cost of the vessels to be constructed. This estimated base cost (which does not include the cost of plant) is subject to increase or decrease because of the following: (a) Wages varying from schedule; (b) cost of material varying from schedule; (c) changes due to alterations; (d) compliance with owner's instructions as to wages or conditions of labor; (e) decrease if insurance is dispensed with.

B. *Fee.*—The agent receives for his services the following compensation:

(1) A normal specified fee if actual cost of vessel equals estimated cost;

(2) The normal fee is *increased* by the following: (a) One-third of any saving if the actual cost per vessel is less than the estimated cost; (b) a premium of usually $300 per day for delivery in advance of schedule ($500 for troop vessels under contract 83), not exceeding a specified average sum per vessel.

(3) The normal fee is *decreased* by the following: (a) One-half of the excess if the actual cost per vessel exceeds the estimated cost; (b) losses caused by neglect of agent's executive or managers, not exceeding a specified average amount per vessel; (c) liquidated damages for delay, usually $300 per day ($500 for troop vessels under contract 83) and not exceeding a specified average sum per vessel; (d) the deductions, however, are not to reduce the average fee below a specified *minimum* fee for each vessel.

C. *Cost of plant.*—(See heading "Plant").

PAYMENTS.

I. IN LUMP-SUM CONTRACTS.

The payments are divided into three classes: (A) First payments, which are substantially always in the nature of advance payments; (B) Subsequent or progress payments; (C) Final payments.

A. The *first payments* are usually made payable 30 days after the execution of the contracts and usually constitute 10% of the total purchase price of all of the hulls or vessels.

There are exceptional contracts providing for larger first payments.

The first payments were, in the early days of the corporation, subject to no restrictions. Thereafter they became subject successively to the following restrictions:

(1) That the contractor must show, before a payment would be made, that he had expended or had made committments for labor and/or materials equal to the first payment.

(2) Thereafter a restriction was added that the first payment should be used (except in a few specified instances) only for the construction of the hulls and not for the construction of plant.

(3) Frequently in contracts executed after the middle of July is found the requirement that the contractor must have a specified number of ways completed before the first payment would be made.

(4) From the end of July onwards, the contracts usually provided that the first payment was not to be made except upon a showing of *cash paid out* for labor and/or materials used or on hand for use in the construction of hulls; and it was further restricted in that the first payment should be used exclusively for the construction of hulls, and not for the construction of the plant.

(5) Other forms of restrictions used since the end of July and in use at the present time are:

(a) The placing of the first payment in a trustee account, title to which is in the owner, the monies being withdrawn therefrom only upon the countersignature of the owner's representatives and used only for the construction of hulls (though, in some cases, the contract permits a certain proportion of the money to be used under certain restrictions for plants).

(b) The contractor is required to give a bond with a satisfactory surety, or secured by a mortgage upon its plant to secure the proper application of the first payment.

B. The *subsequent or progress payments* are to be made as certain stages in the progress of the work are reached but only if, when those stages are reached, the value of the work constructed and of the materials on hand (as certified by the owner's inspectors) equals the proportion of the first payment applicable to the particular vessel, plus all prior payments made on such vessel plus the payment then due.

Subsequently, since August, 1917, a clause has been adopted, making the progress payments applicable when a certain stage in the progress of the work, or its equivalent in work done and value of materials on hand, is reached, the payment not to exceed the value of the work done and materials on hand.

In some of the contracts in present use, where part of the first payment is permitted to be expended by the contractor for plant, a certain proportion thereof is allowed to be computed against each vessel in estimating progress payments.

C. The *final payment* on each hull or vessel is usually payable upon, or 30 days after, acceptance by the owner.

II. IN GUARANTEED FEE TYPE OF COST PLUS CONTRACT.

Payments are made as follows:

(1) Of items of cost, within fifteen days after submission of bills and payrolls covering approved cost for previous month.

(2) Of fee within thirty days after acceptance of a hull or vessel. In some cases one-half of the fee is payable when the vessel is launched and the other one-half when it is accepted.

III. IN SLIDING SCALE FEE TYPE OF COST PLUS CONTRACT.

Same as in guaranteed fee type.

IV. IN AGENCY CONTRACTS.

Of cost.—(1) The owner pays money into a trustee account, title to which is in the owner. The money may be withdrawn only upon checks countersigned by the owner's representatives. Such moneys are used to meet the current expenditures under the contract. The proper application of these funds is further secured except in contract 91 by a bond (either of a surety company or secured by a mortgage on plant).

(2) Some outside expenses are paid by the owner monthly, fifteen days after the submission by the agent of approved bills.

Of fee.—One-half of the *minimum* fee is paid as each vessel is half completed; one-half of the *minimum* fee as each vessel passes a satisfactory trial: the balance, if any, upon the audit of the actual cost per vessel.

PLANT.

I. IN LUMP-SUM CONTRACTS.

(*a*) 1. In one of the early lump-sum contracts, the contractor erected a certain part of ways and owner purchased upon their completion. The contractor had the right to repurchase after the termination of the contract, at a price to be agreed upon.

2. The first payments in the earlier contracts were not restricted in their use to the construction of vessels and, hence, might have been used by the contractor for plant construction.

(*b*) Under the present forms of contract—

(1) The owner frequently permits part of the first payment to be used for the construction of plant, ways, etc.

(*a*) In some cases, this is qualified by the requirement that contractor furnish an equal amount to be used in the construction of ways, etc.

(2) The proper application of these funds is secured—

(*a*) Either by putting the money in a trustee account subject to be withdrawn only upon the countersignature of the owner.

(*b*) Or by the requiring of a bond either of a surety company or secured by a mortgage on contractor's plant insuring that the moneys shall be so applied.

(*c*) Sometimes by both the trustee account and the bond.

(3) In one recent contract (99) in addition to permitting the contractor to use part of the first payment on plant construction, the owner advanced $300,000 to be used by the contractor for the erection or extension of plant. The repayment of such moneys is secured by a mortgage on the plant and, in addition, the owner has the right to withhold the contractor's fees as they accrue until such sum is paid.

II. IN GUARANTEED-FEE TYPE OF COST-PLUS CONTRACT.

The cost of the construction of or extensions or additions to plant (authorized by the owner) is included in and spread over the cost of the vessels and is borne by the owner, and the plant so constructed or extensions so made belong to the owner. Usually the contractor has option to purchase the improvements at an agreed valuation. The establishment or the extension of plant is within the control of the owner.

The owner usually imposes a reasonable limit (outside of the contract) upon the amount that may be expended for plant or extension.

In one case (45) the owner made a loan to the contractor to cover permanent improvements, the repayment of the loan being secured by a mortgage on contractor's plant.

III. IN SLIDING-SCALE TYPE OF COST-PLUS CONTRACT.

Cost of the construction of plant or of extensions to plant (authorized by the owner) is included in and spread over the cost of the hulls and is borne by the owner. The plant so constructed or extensions so made, so far as paid for by the owner, belongs to it (except that some of the contracts provide for its belonging to the owner only where the average cost per hull exceeds the estimated cost plus the normal fee). Those paid for by the contractor belong to the contractor. The contractor usually has the option to purchase the construction paid for by the owner at an agreed valuation. In some cases all of the plant constructed is paid for by the owner; in others (for example, 14, 60, 73) the amount to be expended on plant is limited in the contract. Where no limit is named in the contract, the owner imposes a reasonable limit. Of course, the estimated cost per hull or vessel includes, in fact, an estimated cost of plant which is distributed over the vessels.

IV. IN AGENCY CONTRACTS.

A. *Land.*—The land is owned by the contractor, except in one case (contract 86), where it is owned by the city of Newark.

B. *The plant.*—(1) Except in contract 91, the plant must be constructed at the owner's expense. (*a*) Where so constructed, the plant belongs to the owner; (*b*) the owner has the option to purchase the land; (*c*) if the owner does not purchase the land, the contractor (in contract 86, the city of Newark) has the option to purchase the plant constructed at the expense of the owner; (*d*) if neither the owner purchases the land nor the contractor (or the city) the plant, the owner may remove the plant; (*e*) in each of these three cases the owner has imposed a limit upon the cost of plant.

(2) In contract 91 the agent owns the real estate and plant. The owner advances $500,000 to extend the plant and takes a mortgage on the plant as security for the repayment of the $500,000 and has the right to withhold the agent's fees until the sum of $500,000 has been repaid.

SUBCONTRACTS AND ORDERS.

I. IN LUMP-SUM CONTRACTS.

When the contractor is protected as to materials, it does not give orders in excess of the schedule prices without the owner's approval.

In the late contracts the contractor does not make commitments for engines, boilers, auxiliaries, deck machinery, etc., without the owner's approval.

II. IN GUARANTEED-FEE TYPE OF LUMP-SUM CONTRACTS.

The owner has complete control over all orders and commitments for materials, equipment, and supplies for vessels and plant. These orders are made by the contractor in the owner's name. The contractor is not liable on such obligations where owner's approval is obtained.

III. IN SLIDING-SCALE FEE TYPE OF COST-PLUS CONTRACT.

Same as in guaranteed-fee type.

IV. IN AGENCY CONTRACTS.

The owner has complete control of all subcontracts and commitments and of every detail of the work, and the agent is bound to serve and protect the owner's interests at all times.

Admiral BOWLES. I was about to explain one of the agency contracts. Is that satisfactory to you, Mr. Chairman?

The CHAIRMAN. Yes; certainly.

Admiral BOWLES. This contract [indicating] is with the American-International Co.

Senator NELSON. Where is that located?

Admiral BOWLES. The American-International Co. have their offices in New York; their shipyard is located at Hog Island, about 8 or 9 miles below Philadelphia on the Delaware River. They have undertaken to build 50 cargo vessels of 7,500 tons each and 70 15-knot troop and cargo vessels of 8,000 tons dead weight each.

The CHAIRMAN. Admiral Bowles, do you know how many ways they have completed?

Admiral BOWLES. I do not, Mr. Chairman, but I will show you in a few moments a photograph showing the condition of their place at the present time.

The CHAIRMAN. How many ways are contemplated there?

Admiral BOWLES. They are to build 50 complete ways. They undertake to build 25 of these 50 7,500-ton cargo vessels within 15½ months and 25 within 18½ months; that is, from the date of the contract—September 13.

Now, of the troop vessels they have to deliver 25 within 15 months, 25 within 20 months, and 20 within 22 months.

The Fleet Corporation advances to them the money for the construction of the shipyard, estimated to cost $21,000,000.

Senator NELSON. The entire cost?

Admiral BOWLES. The entire cost. The vessels that are contracted for were simply estimated as to cost in the beginning, and it was estimated that the cargo vessels would cost $1,100,000 each, or $154 per dead-weight ton, and the troop vessels $1,650,000 each, or $206 per ton.

The contracting company is paid a fee of $55,000 per cargo vessel, which is 5 per cent of the estimated cost, and $82,500 for the troop vessels, which is also 5 per cent of the cost.

If the actual cost is less than the estimated cost, the agent or the contractor gets one-third of the savings, the owner and the employees each get one-third. Now, there are premiums——

Senator NELSON (interposing). Well, the contractor, you say, gets a certain percentage, and the owner and the employer——

The CHAIRMAN (interposing). That is the Emergency Fleet Corporation.

Admiral BOWLES. The Emergency Fleet Corporation takes one-third, and the men in the shipyard get one-third.

Senator NELSON. The laboring men?

Admiral BOWLES. The laboring men.

Senator NELSON. And the contractor gets one-third?

Admiral BOWLES. Yes.

Senator HARDING. Let me interject the remark at this point that I think that is the fairest policy that I have heard reported.

Senator NELSON. Yes; that is a good contract.

Admiral BOWLES. That is Admiral Capps's work.

Senator HARDING. I am no respecter of admirals, but I think it is a fine policy.

Admiral BOWLES. There are premiums for the early delivery of these vessels, which can not exceed, however, $14,000 apiece for each cargo vessel, and $17,500 per troop vessel.

Senator JONES. To whom does that premium go?

Admiral BOWLES. That premium goes to the agent.

Senator NELSON. The contractor?

Admiral BOWLES. The contractor.

Senator JONES. The employees, the workmen, get none of that?

Admiral BOWLES. It will be arranged by the agent to distribute a very large portion of that to selected employees—whoever they choose.

Senator JONES. Is that provision in the contract?

Admiral BOWLES. I forget at this moment whether it is in the contract or not, but I know it is the understanding and will undoubtedly be carried out.

If the actual cost exceeds the estimated cost, and these losses are caused by any neglect of the agent's executives or managers, then there are various provisions for damages, which, however, do not exceed $14,000 per cargo vessel, nor $17,500 for a troop vessel; that is, these reductions shall not reduce the agent's fee below $41,000 per cargo vessel, nor below $65,000 per troop vessel.

Senator JONES. That is in the nature of liquidated damages?

Admiral BOWLES. That is the measure of damages.

The CHAIRMAN. No matter what the delay?

Admiral BOWLES. No matter what the delay, because he has a minimum fee under any circumstances; except in this case, that where the owner becomes dissatisfied with the agent's performance of his duty the owner may forfeit the contract and take it over from the agent.

The Fleet Corporation owns the improvements and has an option to purchase the real estate at the cost price.

Senator NELSON. That is, where one of these shipbuilding plants is erected the land is not owned by the Government?

Admiral BOWLES. No.

Senator NELSON. Whom is it owned by?

Admiral BOWLES. It is owned by the American-International Co.

Senator NELSON. And when the work is completed the Government has the option of purchasing the land?

Admiral BOWLES. It has the first option.

Senator NELSON. But suppose the Government does not see fit to buy the land, what about the plant then? The Government owns the plant; is there any provision for the company taking it over?

Admiral BOWLES. The owner has the option to purchase, and if the owner does not purchase, the agent has the option to purchase the buildings, at an appraised value, and if neither the agent nor the owner exercises the option, then the owner may remove the property.

Senator CALDER. The owner may do what?

Admiral BOWLES. Remove the property. That is, the Fleet Corporation may remove the machinery, the improvements that are removable.

The CHAIRMAN. Is the cost of the land fixed in case the Government wants to exercise its option to purchase it?

Admiral BOWLES. The cost of the land is fixed at $7,600,000, and any further sum which the agent may be obligated to pay out to the Commonwealth of Pennsylvania; there are some assessments and taxes on the land due to the Commonwealth of Pennsylvania.

The CHAIRMAN. How much land is there?

Admiral BOWLES. I do not remember, Mr. Chairman.

Senator JONES. Well, practically that will force the Government to buy the land, will it not?

Admiral BOWLES. It will depend entirely upon what the shipbuilding situation is at the close of the war. If the Congress and the Government so regulate their affairs that it becomes profitable to operate a merchant marine of the United States, the Government may have made a splendid investment in these shipyards.

Senator NELSON. This contract goes into the record, does it?

Admiral BOWLES. That is a part of the contract submitted, and the analysis I have given of this agency contract is substantially the same as the others, with the necessary changes in the figures.

Senator CALDER. Who is the president of this corporation that you have described?

Admiral BOWLES. Mr. Charles A. Stone, of Boston.

Senator CALDER. Of Stone & Webster?

Admiral BOWLES. Yes, sir.

The CHAIRMAN. Were they building ships before the war; do you know?

Admiral BOWLES. They owned a controlling interest in the New York Shipbuilding Co., and only in that way do they build ships.

The CHAIRMAN. Is the New York Shipbuilding Co. an old-established shipbuilding enterprise?

Admiral BOWLES. Yes, sir; it was established in 1901 or thereabouts—1900, I think.

Senator NELSON. Where were they?

Admiral BOWLES. At Camden, N. J.

Senator JOHNSON. Well, prior to the war did they have the particular land that is described in the contract?

Admiral BOWLES. That I do not know, but I think not.

Senator JOHNSON. Was that acquired by them for the purposes of the contract?

Admiral BOWLES. For this purpose.

Senator JOHNSON. For this purpose. How many contracts, or, rather, how many ships are contracted for with this particular corporation?

Admiral BOWLES. There are 120.

Senator JOHNSON. One hundred and twenty; is it the largest contract that you have?

Admiral BOWLES. It is the largest contract.

Senator JOHNSON. The aggregate sum I did not get.

Admiral BOWLES. It is about $165,000,000.

Senator JOHNSON. I see. The amount under the contract that would be realized by the contractor was about what?

Admiral BOWLES. I will have to figure that up; it is about $6,000,000.

Senator JOHNSON. I am speaking just approximately, of course. Now, permit me to recapitulate for just a moment, and correct me if I am in error, will you not? The contract is entered into by our Government—that is, by the representatives of the Government, the Shipping Establishment—with the particular corporation; the corporation is supplied the requisite funds for placing the particular

ground in readiness for the consummation of the contracts and their execution; the liabilities are undertaken by the Government in respect to the construction of what may be essential, the appropriate machinery, and the like; is that correct?

Admiral BOWLES. Yes.

Senator JOHNSON. The contracting party does what? Oversees the work?

Admiral BOWLES. Supplies the "know how."

Senator JOHNSON. Supplies the "know how." I think that is a good answer. That is all it does?

Admiral BOWLES. It supplied in this case the land, and that is all.

Senator NELSON. And the contractors supplied what?

Admiral BOWLES. Well, they supplied the complete organization for carrying on the work; that is what I mean by the "know how."

Senator JOHNSON. Yes. Well, they supplied the organization. But the capital, so far as that is concerned, and everything requisite for the organization is supplied by the Government?

Admiral BOWLES. Yes.

The CHAIRMAN. Do those companies have to have the command of a certain amount of capital—for instance, to pay the men in advance of the Government pay rolls, and that sort of thing?

Admiral BOWLES. We pay every bill and pay roll as it becomes due.

The CHAIRMAN. For instance, take the men on the work; they do not wait until you audit the bills and check up the accounts before getting their money, do they?

Admiral BOWLES. I think they have been obliged to have a small amount of capital; that is, small compared with our total expenditures; but the practice is for us to pay the pay rolls when they are due, for both staff and employees.

Senator JOHNSON. I see. Now, in furnishing all of the money for the pay rolls, the staff and the employees, and the like, does the Government pay as well salaries for the "know how" to which you refer?

Admiral BOWLES. We pay the staff of the actual shipyard. The contractors are paying some additional staff themselves, but the bulk of it we pay.

Senator JOHNSON. When you speak of the staff of the shipyard, do you mean the officers of the corporation?

Admiral BOWLES. I mean not only what you would call officers of the corporation but all superintendents, foremen, designers, and the like.

Senator JOHNSON. Then am I correct in saying that you pay not only the officers of the corporation but the designers, superintendents, and the like?

Admiral BOWLES. That is correct.

Senator JOHNSON. Who is the president of the corporation? Is it Mr. Stone?

Admiral BOWLES. The president of the corporation that is doing the actual work is Mr. Dwight P. Robinson. They have formed a subsidiary corporation for the purpose of this contract, called the "American International Shipbuilding Corporation."

Senator JOHNSON. And Mr. Robinson is president. Does he receive a salary?

Admiral BOWLES. I think not.

Senator JOHNSON. Are you clear on it or is that matter doubtful?

Admiral BOWLES. Well, I can only say—I have not looked at the salary list, but he told me he was drawing no salary.

Senator JOHNSON. I see. When you say "we pay the officers of the corporation," you mean what officers?

Admiral BOWLES. We pay every active officer engaged upon the work.

Senator JOHNSON. Your rolls would show exactly what their positions were and what salaries they received and the like, would they not?

Admiral BOWLES. Yes; exactly.

Senator JONES. Do you want Admiral Bowles to furnish that information?

Senator JOHNSON. Yes; I think it would be wise.

Senator NELSON. As I understand it, Admiral Bowles——

Senator JONES (interposing). Just a moment, Senator Nelson; I wanted to ask the admiral to furnish a list of officers of the company, with their salaries; we would like to know the salaries.

Admiral BOWLES. All right, sir.

(The statement was subsequently furnished by Admiral Bowles and is here printed in full, as follows:)

AMERICAN INTERNATIONAL SHIPBUILDING CORPORATION.

Summary of overhead employees receiving $200 per month and over.

Work order No.	Department.	Number of employees.	Total.
100	Engineering	30	$11,154.84
102	General manager's	18	11,349.98
103	Office manager's	4	975.00
104	Works manager's	87	29,919.15
105	Accounting	20	5,583.32
106	Employment	21	7,625.00
107	Purchasing	22	6,658.33
110	Commissary	2	616.66
210	Fabricating	63	22,767.00
Total		267	96,649.28

ENGINEERING DEPARTMENT (W. O. No. 100).

Name.	Position.	Rate per month.	History.
Bluhm, H. W	Designing engineer	$250.00	4 years with Isthmian Canal Commission as general designer on concrete, handling, plans, trestles, buildings, miscellaneous structural steel construction, reinforced concrete wharves, etc.
Bowerman, E. R	Assistant structural engineer	250.00	Contract engineer with H. S. Kerbaugh (Inc.), on New York State Barge Canal construction; chief engineer for Leary Construction Co.
Boyajohn, H. M	Structural engineer	400.00	Formerly in private practice in Portland, Oreg., having broad experience in design of large motor-car plants, docks, warehouses and grain elevators.
Converse, W. F	Assistant mechanical engineer.	350.00	Engineer of works of Westinghouse Lamp Co.; wide experience as operating engineer for various electric-power companies.
Dale, O. G	Assistant chief engineer	666.67	Formerly part owner of Mead-Morrison Manufacturing Co.

Summary of overhead employees receiving $200 per month and over—Continued.

ENGINEERING DEPARTMENT (W. O. No. 100)—Continued.

Name.	Position.	Rate of month.	History.
Davenport, R.	Assistant mechanical engineer.	$333.34	Formerly designing engineer with American Car & Foundry Co., also with Arnold Co. on industrial plant design.
Emerson, G. D.	Assistant civil engineer	350.00	14 years with Boston Transit Commission.
Fuller, Wm. A.	Sanitary engineer	500.00	With Fuller-Coult Co., consulting engineers, St. Louis, for 9 years as consulting and supervising engineer; formerly with United States Government at Rock Island for 5 years.
Grunwell, P. C.	Designing engineer	234.00	Formerly junior engineer on river and harbor improvements; draftsman on navy-yard surveys.
Haggard H H.	Assistant utility engineer	250.00	8 years in the employ of the Cuban Engineering and Contracting Co. on construction of sewers and water work in Habana.
Hayne, Dan C.	Assistant sanitary engineer	300.00	Formerly construction engineer and superintendent of concrete construction for Cleary-Curt Co., general contractors at Minneapolis; 3 years as principal assistant to city engineer, city o Indianapolis.
Hirsch, J. G.	Chief draftsman	275.00	Formerly with Daniel W. Meade, engineer in charge mechanical department; with Bates & Rogers Construction Co. as contractor's engineer; recently assistant chief draftsman with Stone & Webster.
Horton, I C.	Civil engineer	300.00	19 years railroad experience; 13 years in Boston office of Stone & Webster.
Ilg, George M.	Assistant structural engineer	225.00	16 years experience in the steel construction and general building work.
Mackendrick F. R.	Estimator	300.00	5 years with Stone & Webster as assistant chief draftsman and estimator.
Manning, J. H.	Chief engineer	750.00	With Stone & Webster for 7 years; superintendent White Salmon; hydraulic engineer in charge hydraulic reports and appraisals on Hauserlake and Verdi developments, in Boston office.
Maxfield, D. E.	Assistant mechanical engineer.	333.33	Formerly with R. D. Wood & Co. as plant engineer; many years on power plant design and construction.
Meigs, John	Dredging engineer	1,000.00	Direct charge of preparation of comprehensive plans for the entire rehabilitation of port of Philadelphia. Previously director of wharves, docks, and ferries, city of Philadelphia.
Murphy, Leo O.	Assistant civil engineer	225.00	2 years with United States Geological Survey as civil engineer; 7 years as assistant engineer with Stone & Webster on water power development and as hydraulic engineer at Reno.
Osgood, H. W.	Electrical engineer	350.00	11 years with Stone & Webster as electrical engineer.
Pope, Joseph	Mechanical engineer	325.00	Operating and betterment engineer with Stone & Webster for 8 years.
Porter, Capt. L. H.	Superintending captain (at present in fabricating department).	500.00	8 years with the Atlas Steamship Co. as ship's officer and master; 2 years with the United Fruit Co. as chief officer, and 11 years as ship officer and 3 years as superintendent of construction.
Reeve, L. N.	Assistant structural engineer.	275.00	Many years' experience on hydroelectric construction in the West.
Sanders, John, jr.	Assistant to chief engineer	312.50	Formerly with New York Shipbuilding Co. and Cramp Ship and Engineering Co.; broad experience on street and railway construction.
Skinner, Ramsey	Assistant sanitary engineer	600.00	Formerly with Ulen Contracting Co.; 25 years' experience on installation of pumping machinery, power plants, and irrigation systems.
Smith, B. L.	Utility engineer	300.00	3 years as principal assistant to Ezra B. Whitman, consulting engineer, Norton, Bird & Whitman.
Stirrat, Capt. Wm.	Assistant to superintending captain.	300.00	20 years as second mate and purser on Allen Line, White Star Line, United Fruit and Bell Bros. steam vessels; 6 years with Panama Railroad Co. as chief clerk in docks freight department.

Summary of overhead employees receiving $200 per month and over—Continued.

ENGINEERING DEPARTMENT (W. O. No. 100)—Continued.

Name.	Position.	Rate per month.	History.
Strachan, John	Marine engineer (adviser on purchase of marine equipment; will be superintending engineer during installation of machinery and running of trial trips).	$500.00	Long experience as chief engineer of trans-Atlantic ships and United Fruit Co.; recently with Babcock & Wilcox.
Tandy, Walter L.	Railroad engineer	200.00	Assistant engineer of Pennsylvania lines west for 3 years; 3 years with Boston & Maine R. R. as assistant engineer in valuation department.
Wisner, R. R.	Assistant electrical engineer.	200.00	4 years with Stone & Webster as electrical draftsman and squad chief.
Total		11,154.84	

GENERAL MANAGER'S OFFICE (W. O. No. 102).

Bunce, H. L.	Secretary to general manager.	$300.00	With Stone & Webster 9 years, with various operating companies; recently secretary of engineering department.
Canada, W. J.	Engineering assistant to general manager (assistant to Snyder regarding contracts, etc.).	375.00	6 years with the Rocky Mountain Fire Underwriters' Association as hydraulic and electrical engineer; 4 years with the Bureau of Standards, Washington, as assistant physicist and electrical engineer.
Clark, C. M.	Assistant to general manager and assistant secretary to corporation (legal contract end).	541.67	8 years with Stone & Webster as secretary of various public service corporations; recently in New York office.
Goodenough, W.	General manager	2,083.33	Formerly chief engineer with Stone & Webster.
Eustis, L. E.	Assistant to general manager, executive assistant.	550.00	With Stone & Webster for 17 years on many important jobs, such as White River and Keokuk developments; assistant treasurer of Stone & Webster operating companies in Boston office.
Kemp, Wm., 2d	Progress assistant (assistant to Veltfort).	200.00	4½ years with Barge Canal Terminals, New York City, as assistant to engineer in charge of construction, Pier 6, East River, New York City, and preparing plans for specifications for harbor development.
Lovekin, L. D.	Consulting engineer	1,125.00	Chief engineer of New York Shipbuilding Corporation, where he has been for 17 years.
Oviatt, H. C.	Transportation manager	1,250.00	Formerly with New York, New Haven & Hartford R. R., general superintendent of western division immediately before coming on this work.
Ross, W. G.	Engineering assistant (assistant to Snyder regarding contracts, etc.).	416.66	Graduate engineer, 15 years' experience; last 11 years with Stone & Webster in various capacities; general superintendent of Cape Breton Electric Co.; superintendent of construction, Edison Electric Illuminating Co. of Brockton; sales manager, Abington, Mississippi River Power Co., Dallas Electric Corporation, etc.
Schobinger, George	Assistant progress engineer (assistant to Veltfort).	200.00	6 years with the United States Reclamation Service as assistant engineer.
Sherman, Chas. G.	Assistant in general manager's department (assistant to Snyder regarding contracts, etc.).	333.33	Consulting engineer for the past 15 years.
Snyder, A. L.	In charge of interrelations with Shipping Board.	625.00	With Stone & Webster for 13 years in various capacities, as superintendent of power, Seattle Electric Co.; electrical engineer on Keokuk plant and transmission lines and Big Creek transmission line; recently electrical engineer in Boston office engaged on reports and appraisals.
Van Bibber, A. E.	Assistant to general manager in charge of organization matters.	750.00	2 years with Industrial Co., Boston, as executive.
Veltfort, T. E.	Progress engineer	300.00	Progress engineer on Keokuk development, new technology buildings, and San Antonio cantonment.

Summary of overhead employees receiving $200 per month and over—Continued.

GENERAL MANAGER'S OFFICE (W. O. No. 102)—Continued.

Name.	Position.	Rate per month.	History.
Woods, Walter H...	Assistant to Van Bibber....	$300.00	7 years as president and treasurer of the Walter E. Woods Co.
Hunt, R. L.....	Publicity assistant.....	666.66	6 years as secretary to George Wharton Pepper; three years as secretary to United States Fidelity & Guaranty Co.; 3 years as vice president and manager of the Morris Plan Co.
Pierce, D. T.....	Publicity manager.....	833.33	4 years as executive assistant to Barber Asphalt Paving Co.
Reed, Thomas B...	Publicity assistant.....	500.00	17 years with Philadelphia News Bureau, Philadelphia North American, Telautograph Corporation, New York, and as advertising and business managers, etc.
Total.....	.....	11,349.98	

OFFICE MANAGEMENT (W. O. No. 103).

Blake, N. H.....	Assistant office manager.....	$200.00	4 years with the Bell Telephone Co. of Pennsylvania as assistant to district manager.
Endicott, T. H.....	Office manager.....	375.00	7 years with Stone & Webster as purchasing agent.
Oldaker, W. I.....	Assistant to office manager (in charge of telephone service).	200.00	14 years with the New York Telephone Co. as telephone supervisor and special agent.
Porter, H. E.....	Assistant office manager.....	200.00	10 years with the S. S. White Dental Manufacturing Co., as manager of the subscription department of the Dental Cosmos.
Total.....	.....	975.00	

WORKS MANAGEMENT (W. O. No. 104).

Abrahamson, L. R.	Progress engineer (assistant to Veltfort).	$225.00	4 years supervising engineer on construction work for S. L. Brumbaugh, Philadelphia, and Mockett Construction Co., Camden.
Andrew, J. D.....	Assistant works manager....	1,000.00	Formerly in charge of all construction for Edison Electric Illuminating Co. of Boston.
Anthony, H. F.....	Chief job engineer.....	416.67	General superintendent in charge of dam construction; 3 years as resident engineer at Keokuk. Formerly with H. L. Cooper for many years.
Baldwin, C. W.....	Assistant storekeeper (in charge of checking cars.)	225.00	Assistant to general manager of the Mid-West Refining Co.; stenographer and clerk for the Philadelphia & Reading and the Texas Co. for 12 years.
Barden, James R...	Progress engineer (assistant to Veltfort).	250.00	5 years general superintendent of construction, president and treasurer of Barden Bros., contractors, Yonkers, N. Y.
Barter, H. H.....	Utility superintendent (sewers, water, light, and roads.)	500.00	With Stone & Webster for several years; assistant to superintendent of construction at White River and White Salmon hydraulic plants; recently chief engineer, Union Film and Triangle Film Corporations.
Bayne, C. W.....	Assistant superintendent trucks and automobiles.	250.00	Formerly with Ackerson Motor Truck Co.; 3 years with Ford Motor Co., Detroit, Mich.; previously chief cost accountant of Timkin-Detroit Axle. Co.
Bird, E. M.....	Traffic manager.....	300.00	
Black, Edgar N....	Assistant storekeeper.....	225.00	
Blake, Paul.....	General superintendent of ways and wet basins.	625.00	Formerly contractor. Has had considerable experience in the erection of wharves, docks, and ferry; also on quarry work.
Brayton, L. F.....	General superintendent of material.	833.33	15 years' experience on structural engineering, including 2 years in charge of Portland, Oreg., office of Stone & Webster. Seven years in private practice.

Summary of overhead employees receiving $200 per month and over—Continued.

WORKS MANAGEMENT (W. O. No. 104)—Continued.

Name.	Position.	Rate per month.	History.
Brookfield, Capt. E. W.	Adjutant of guards	$300.00	3 years with Canadian expeditionary force as infantry and staff officer.
Carr, T. A	Works manager	833.33	7 years with Stone & Webster; general superintendent of large jobs, such as Minneapolis Power Station, one of the fastest built stations in the country, power house at Keokuk, new building for M. I. T. and recently finished First National Army Cantonment at probably the lowest cost of any out of 16.
Catherman, H. Y	General car foreman	200.00	15 years with Philadelphia & Reading Railway as general foreman of car inspection.
Clark, J. H	Superintendent of miscellaneous construction (grading and buildings).	416.66	7 years as field superintendent with Stone & Webster.
Coggshall, F. H	Superintendent of materials (assistant to Lynch).	200.00	3 years as general storekeeper National Steel Co., Hamilton, Ontario.
Comer, R. O	Assistant storekeeper	275.00	
Considine, J. B	Superintendent passenger service.	250.00	34 years trainmaster, train dispatcher, and chief train dispatcher New York, New Haven & Hartford R. R. Co.
Cotterill, J. R	Captain of guard	250.00	2 years as officer with Canadian expeditionary force.
Crouse, W. T	Chief clerk of stores department.	225.00	16 years with the United Gas Improvement Co. as assistant superintendent of stores.
Davidson, Ole	Superintendent of railroad construction (assistant to Locke).	300.00	20 years on railroad construction, including 7 years with Stone & Webster as assistant superintendent and field engineer.
Dick, D. D	Special assistant to works manager.	300.00	8 years with Stone & Webster as resident engineer and superintendent of construction on various pieces of work.
Diver, Edward W	Assistant fire chief	209.17	26 years as captain of fire bureau, city of Philadelphia.
Donaldson, F	Construction manager	750.00	2 years chief engineer for T. A. Gillespie Co.; 3 years managing engineer on subway work; general superintendent on building Camp Zachary Taylor.
Dransfield, Thomas.	Estimater (assistant to Veltfort).	210.00	Formerly with the El Paso Bridge & Iron Co., El Paso Tex., as structural and construction engineer.
Egglestone, F. B	Chief clerk	200.00	4 years with J. C. Newman Cigar Co. and Firestone Rubber Co., Akron, Ohio, as chief clerk in the engineering department.
Evans, J. B	Assistant superintendent on piling.	300.00	Formerly with J. C. Stewart; 6 years in private business.
Farley, M. M	Assistant to construction manager (assistant to Donaldson).	300.00	Assistant engineer, board of water supply, New York, and assistant quartermaster, Camp Upton.
Field, F. T	Superintendent marine service.	300.00	Formerly superintendent of Long Island Sound ferry; marine engineer Interstate Lighterage Co.; general foreman Staten Island Shipbuilding Co.
Flemming, F. G	Superintendent of records and statements (assistant to Brayton).	400.00	Secretary and treasurer Merchants' Construction Co.; auditor with Hollis, Tilton & Porte, public accountants, for 5 years.
Fortune, Wm. B	Superintendent of ship assembling.	1,000.00	9 years with New York Shipbuilding Co., in charge of erection of work and launching of ships. Recently with the St. Lawrence Bridge Co., having just completed large span bridge across the St. Lawrence River at Quebec.
Fowler, George E	Warehouse foreman	200.00	8 years as salesman with Proctor, Gamble & Co.
Gallaher, F. F	Shops manager	833.34	10 years with the New York Shipbuilding Co.; in charge of their shops.
Greenhood, B. J	Progress engineer (leaving Jan. 1).	200.00	In charge of design of Coney Island terminals; masonry designer for Stone & Webster; 11 years with the Trusser Concrete Steel Co. as chief engineer.
Groesbeck, G. R	Progress photographer	225.00	In charge of photographs with Stone & Webster for past 4 years; previously assistant advertising manager for Faunce & Spinney.

Summary of overhead employees receiving $200 per month and over—Continued.

WORKS MANAGEMENT (W. O. No. 104)—Continued.

Name.	Position.	Rate per month.	History.
Harris, B. W	Assistant to works' manager	$1,000.00	Member of firm of Manufacturers Supply Co. of Minneapolis.
Harris, Leo B	Charge of construction equipment.	625.00	Do.
Hartenstein, Fred	Superintendent of transportation.	400.00	Formerly trainmaster, superintendent of transportation, division superintendent of Long Island R. R.; superintendent of P. & M. R. R.; assistant general manager Lehigh Valley R. R.; labor agent New York, New Haven & Hartford R. R.
Henry R. S	Assistant engineer	200.00	Two years as building superintendent with Newport Construction & Engineering Co.
Ingham, W. B	Stores department	250.00	Formerly engineering and construction departments Pennsylvania R. R.; civil engineer and superintendent of construction, New York Board of Water Supply; Quartermaster's Department at New London; assistant to chief engineer of public utilities commission of New Jersey.
Jones, W. T	Captain of police	200.00	Sergeant in Spanish-American War. Recently stationed at Fort McKenzie as quartermaster; also at Fort Leavenworth as prison guard.
Jordan, E. E	Yardmaster	200.00	9 years as yardmaster and trainmaster Lehigh Valley R. R.
Kiefer, A. W	Progress engineer	250.00	Formerly with Johns-Manville and Westinghouse Companies as superintendent of construction and manager of construction department.
King, E. C	Checking wage rates	225.00	7 years with Southern Pacific, Los Angeles, as assistant engineer.
Kirby, W. S	Assistant storekeeper	250.00	
Larry, W. L	Transportation superintendent.	400.00	18 years with New York, New Haven & Hartford R. R.; one year with the Fitchburg R. R. Co.; 10 years with Massachusetts Public Service Commission; freight brakeman, locomotive fireman, engineer, road foreman of engines, and master mechanic.
Lawry, Melvin	Marine superintendent	250.00	Formerly master of United States tug; in the United States Lighthouse Service; and master of steamship Yacht.
Lever, G. S	Special fire and police protection (inside man).	250.00	Formerly superintendent for E. D. Lever, contractor and builder; chief of police of Abington and Ogontz, Pa.; recently finger print expert.
Littlejohn, R. G	Office engineer	200.00	
Locke, W. L	Special assistant works manager.	833.33	18 years with Stone & Webster as construction superintendent.
Ludwick, E. E	Assistant progress engineer	250.00	4 years as superintendent of construction with Rankin, Kellog & Crane.
Ludwick, F. J	do	225.00	Do.
Lynch, J. E	Assistant superintendent of stores (assistant to Brayton).	400.00	Formerly with Stone & Webster in purchasing and stores department; recently manager for Page & Hill Co., Minneapolis.
Macbeth, H. A	Material supervisor	225.00	5 years on traffic and shipbuilding with Bayonne Bolt & Nut Co.
Martin, J. T	Manufacturing manager ship construction.	1,250.00	Last 15 years general superintendent marine department Maryland Steel Co.
Merrill, C. H. S	Office manager at Hog Island.	200.00	Formerly secretary to chief engineer Stone & Webster.
Minot, S. W	Assistant fire chief	200.00	
Meskill, J. J	Fire chief	333.33	Chief thirty-first battalion bureau of fire, city of Philadelphia.
Mesny, R. B	Assistant superintendent of labor, Hog Island.	300.00	5 years general construction with Stone & Webster.
McDill, R. D	Assistant storekeeper	300.00	Formerly commissary storekeeper at Gorgona, Panama Canal Zone; general storekeeper with Cleveland Construction Co., and Texas Light & Power Co., Waco and Dallas.
McDonald, Alex	Assistant superintendent pump plants.	250.00	14 years as superintendent with C. A. Simms & Co.
McLane, W. L	Assistant engineer to Anthony.	200.00	3 years construction engineer with Firestone Tire & Rubber Co.

Summary of overhead employees receiving $200 per month and over—Continued.

WORKS MANAGEMENT (W. O. No. 1041)—Continued.

Name.	Position.	Rate per month.	History.
O'Neill, A. J.	Material clerk	$200.00	
Page, F. H.	Assistant storekeeper	250.00	8 years salesman with M. L. Kleine, Portland, Oreg.; 7 years with Crane & Ordway Co., St. Paul, Minn.
Parkinson, R. L.	Assistant storekeeper	250.00	6 years with Brayton Engineering Co., Portland, Oreg., and Porter Bros., Detroit, Mich.
Patterson, G. G.	Master mechanic	333.33	Formerly road foreman of engines, New Central Railroad, and engine-house foreman with the Ulster & Delaware Railroad Co.
Pearsoll, W. R.	Assistant in office to Merrill.	200.00	10 years drafting experience, 12 years superintendent with C. P. H. Gilbert, W. W. Bosworth, and Stone & Webster on technology construction and Rock Island Arsenal.
Pearson, R. L.	Superintendent railroad yard.	333.33	Formerly track supervisor and division engineer New York, New Haven & Hartford R. R.
Pierce, E. H.	Engineer building department.	225.00	Engineer for 10 years with Firestone Tire & Rubber Co., Woodlawn Cemetery, and city of New York.
Rainear, C. W.	Chief requisition clerk	225.00	15 years with C. J. Rainer Co., Equipment Manufacturing & Supplies Co.
Redfield, J. E.	Assistant superintendent pump plants.	250.00	Foreman and superintendent 29 years with W. G. Slater, Godwin Construction Co., Jno. O. Merritt, and New York Sewage Co.
Reese, D. W.	General foreman	200.00	Resigned Dec. 25, 1917.
Robinson, H.	Field engineer	225.00	9 years with the Atlantic Construction Co., Atlantic City, N. J., as superintendent and engineer.
Rousch, W. W.	Assistant to Davidson	225.00	4 years with Stone & Webster on reinforced concrete and building construction and design, and 4 years with Fisher, Walsh & Raush Corporation as general manager.
Rust, J. W.	Engineer	225.00	Construction engineer with Hunkin-Conkey Construction Co., Cleveland, Ohio.
Salisbury, Ed. V.	Superintendent trucks and automobiles.	416.67	Formerly in charge of designs, organization, and equipment with the American field service in France; employed by the Rock Island Arsenal as automobile expert.
Schede, A. W.	Material engineer (assistant to Brayton).	333.33	Worked for Brayton Engineering Co.
Sinclair, Maj. A.	Superintendent of guards	450.00	Provost Marshal, City of Toronto, Ontario; Dominion Government, Canada.
Slack, Frank E.	Yard master	200.00	
Thornburg, T. R.	Labor manager at works	416.66	7 years superintendent of construction Stone & Webster.
Toland, H. I.	Material engineer (assistant to Brayton).	200.00	6 years with Merchants Shipbuilding Co.; New York Navy Yard; Cramp & Co., as production engineer.
Towne, E. S.	Assistant field engineer to Anthony.	200.00	
Tuell, S. B.	General utility superintendent (assistant to Barter, operation and maintenance).	416.67	Stone & Webster 16 years; recently Blackstone Valley Gas & Electric Co., Pawtucket, R. I.
Wagner, G. M.	Assistant storekeeper	250.0	General storekeeper 12 years with New York Shipbuilding Co. and 4 years with Joseph Campbell Co.
Webb, B. W.	Assistant storekeeper	200.00	4 years Delaware & Hudson Co., general auditor's office, assistant traveling auditor for 4 years.
Weston, W. B.	Field engineer (assistant to Anthony).	250.00	Consulting engineer, specializing in drainage and sanitation.
Wheeler, L. W.	Assistant storekeeper	250.00	
Total		29,919.15	

Summary of overhead employees receiving $200 per month and over—Continued.

ACCOUNTING DEPARTMENT (W. O. No. 105).

Name.	Position.	Rate per month.	History.
Arthur, Harry A...	Second assistant treasurer...	$500.00	11 years with Stone & Webster; assistant treasurer Savannah, Ponce & Paducah, and 1 year with American International Corporation as assistant secretary and treasurer, Siems-Carey Ry. & Canal Co., and auditor for American International Corporation in China and Japan.
Bringham, W.A....	Paymaster, Hog Island.....	208.33	Timekeeper, accountant, and paymaster on several Stone & Webster jobs in the West during the past 8 years; cost accountant with the Pacific Gas & Electric Co.; recently head timekeeper, cashier, and manager, commissary department, Phoenix Construction Co., Idaho.
Burnett, George P..	Chief pay roll clerk.....	200.00	7 years as district manager with Truckford Motor Co., San Antonio.
Dow, W. W.....	Assistant treasurer.....	833.33	15 years with Stone & Webster; assistant treasurer of operating companies, Stone & Webster Management Association and Stone & Webster Engineering Corporation.
Essley, H. E.....	Chief clerk.....	300.00	Many years on Government accounting; assistant treasurer and assistant manager of the Idaho Irrigation Co.
Fisk, C. R.....	Assistant chief timekeeper...	225.00	9 years with Stone & Webster as assistant construction accountant.
Isett, J. Warren....	Assistant to insurance manager.	200.00	Formerly with the General Accident Co. and National Life Co., engaged chiefly in the settlement of claims—11 years.
Kelly, J. A.....	Chief timekeeper.....	300.00	7 years with Stone & Webster as head timekeeper.
Kline, E. C.....	Assistant chief timekeeper..	225.00	3 years with Stone & Webster as timekeeper; 3 years with the Milwaukee Ry. & Light Co. as assistant foreman.
Lovejoy, W. C.....	Division timekeeper.....	250.00	8 years with New Orleans Credit Men's Association, superintendent of adjustment bureau.
McDaniel, D. L....	Assistant works accountant.	275.00	With Stone & Webster for 1 year as assistant to works accountant, San Antonio Aviation Field.
McElroy, J. C.....	Cashier at Hog Island.....	200.00	4 years with the Center Point Merchandise Co., Texas, as clerk and salesman; with Stone & Webster on cantonment work at San Antonio.
McMahan, J. A.....	Paymaster at Hog Island...	225.00	With Stone & Webster on cantonment work at San Antonio; 7 years with McArthur Bros.—general accounting.
Murray, A. T.....	Assistant cashier at Hog Island.	200.00	3 years with Stone & Webster as assistant accountant; 3 years with the Missouri River Power Co.
O'Brien, John E....	Insurance manager.....	250.00	7 years with Stone & Webster in connection with insurance at St. Croix Falls, Minnesota, Minneapolis, and Keokuk. Claim agent for Seattle and Tacoma public service companies.
Sealy, J. V.....	Chief paymaster at Hog Island.	300.00	6 years with Stone & Webster as assistant to works accountant; 6 years with Vielie, Blackwell & Buck as field accountant.
Thompson, C. H....	Assistant chief clerk.....	233.33	14 years as accountant, head timekeeper, and paymaster; 4 years with Stone & Webster as auditor, assistant secretary and secretary; 2½ years with Benham Irrigation Co., and allied companies.
Vaughn, E. M.....	Cashier.....	208.33	7 years with Stone & Webster as construction accountant.
Ward, H. H.....	Assistant works accountant.	250.00	8 years with Stone & Webster as assistant to works accountant; 4 years with McLean Construction Co.
Whitney, F. O.....	Cost accountant.....	200.00	Cost accountant with W. H. McElroy Co., Lock & Bolmern & Co., R. P. Hazzard Co., Lamson & Co.
Total.....	.....	5,583.32	

Summary of overhead employees receiving $200 per month and over—Continued.

EMPLOYMENT DEPARTMENT (W. O. No. 106).

Name.	Position.	Rate per month.	History.
Adams, Arthur M..	Surgeon	$375.00	7 years with Midvale Steel Co. as assistant chief surgeon.
Aitken, R. W.	Manager Hog Island, employment office.	400.00	12 years with B. F. Goodrich Co. as assistant to general superintendent and operating manager of Chicago office.
Bay, C. R.	Real estate and assistant to Canterbury.	275.00	Formerly in charge of transmission and water rights at Keokuk.
Braid, Albert P.	Instructor on ships crafts	200.00	Formerly assistant superintendent of construction with Kurtz Bros., Bethlehem, Pa.: chief carpenter and foreman Atlantic Refining Co., and superintendent of construction, Floridin Co., Quincy, Fla., for 2 years.
Canterbury, R. C.	Superintendent of housing	500.00	Formerly engineer with South Shore Electric Co.; St. Croix Falls Car Development and Construction; identified with several of the larger Stone & Webster activities along engineering, commercial, and housing lines.
Davis, Phillip	Assistant to employment manager.	500.00	Identified with Civic Service House in Boston, associated with Meyer Bloomfield; director for 16 years of Employment Managers' Association; associated with work in Hull House, Chicago, and general civic betterment throughout the country.
Fultz, C. A.	Assistant to employment superintendent.	250.00	5 years with Walter S. Place, Boston: 4 years with Fox, Fultz & Co., druggists, as president and director; 1 year with Stone & Webster, El Paso, Tex.
Gibson, P. B.	Instructor of training school on ships' crafts.	250.00	Has been general manager of Southwestern Steamship Co. of Los Angeles; superintendent of works, Western Steel & Iron Works, Winnipeg.
Holmes, Wm. F.	Surgeon	350.00	In private practice of medicine.
Kennedy, D. R.	Employment manager	1,000.00	5 years with Youngstown Sheet & Tube Co. as assistant to president; 2 years with B. F. Goodrich Co., Akron, Ohio; director of industrial relations.
McConaghy, R. A..	Assistant superintendent of housing.	200.00	Temporary man.
Mifflin, S. W.	Welfare assistant	200.00	6 years private law practice; 2 years with Fayette R. Plumb (Inc.) and 2 years with Air Reduction, Co., New York.
Moreland, J. R.	Real estate engineer (temporary).	300.00	14 years as chief engineer, private practice; 5 years as construction engineer with Du Pont Powder Co., Gibbstown.
Morison, Rodney, jr.	Assistant to employment manager.	300.00	Identified with various well-known companies on river and harbor work in vicinity of Philadelphia.
Pratt, J. A.	Superintendent of ships' crafts training school.	500.00	Formerly director of Williamson Manual Training School, Philadelphia.
Reilly, John J.	Chief surgeon in general charge of health and sanitation.	625.00	Consulting surgeon and engineer of various industrial and mining companies in United States and abroad for the last 20 years; in association with Dr. William O'Neil Sherman of the Carnegie Steel Co.
Roddy, Geo. W.	Chief of sanitation	225.00	14 years as foreman, superintendent of construction work and engineer for Gillespie & Son, Oakview, Delaware County, Pa.
Roots, W. H. P.	Assistant to employment manager.	400.00	Particular experience in employment, welfare, and housing; recently in charge of mill, village farm, and general store for the New England Cotton Mill.
Schlaff, Herman	Surgeon	225.00	9 years general medical practice; connected with bureau of health and charities for 16 months; State sanitarium, 6 months; Midvale Steel Co., 18 months.
Slaughter, C. H. P..	Welfare assistant	200.00	22 years' private practice; physician for Norwegian consul in Philadelphia; surgeon for Ocean Accident & Guaranty Corporation; Travelers' Insurance Co.
Whittaker, R. W.	Real estate and assistant to Canterbury.	350.00	Formerly resident engineer, Vera Cruz R. R. Co.; general contracting in Vera Cruz and San Diego, Cal.; construction engineer for MacKenzie Saw Mills (Ltd.), Bombay, India.
Total		7,625.00	

Summary of overhead employees receiving $200 per month and over—Continued.

PURCHASING DEPARTMENT (W. O. No. 107).

Name.	Position.	Rate per month.	History.
Allen, C. R.	Chief clerk	$250.00	5 years with Stone & Webster, chief clerk in drafting department and secretary of engineering department; recently assistant manager of Underhill Press, Boston.
Barker, Chas. M.	Buyer	200.00	Formerly with Norton Co., Worcester, Mass., for 2 years in charge of western sales district; previous to that, with Standard Plunger Elevator Co. for 2 years in charge of estimating department.
Borschneck, C. F.	do	200.00	Formerly assistant manager Pittsburgh sales department of Standard Underground Cable Co.
Carrol, F. M.	Assistant chief expeditor	200.00	Formerly with Schutte & Koerting Co. for 1 year as production clerk. Previously with General Electric Co. for 5 years in same capacity.
Coffin, L. R.	Special assistant	500.00	11 years with Stone & Webster, the last 10 years as manager of their properties at Bellingham, Wash.
Darlington, G. P.	Chief expeditor	300.00	Formerly field inspector of Stone & Webster at Philadelphia. Previously sales manager of Bay State Insulated Wire & Cable Co., and superintendent of construction for Barnes & Loud Electric Co.
Dunn, E. L.	Chief requisition clerk	250.00	8 years with Stone & Webster, with various experience in time, material, traffic, and purchasing departments. Previous to that, with Brayton Engineering Co., Portland, Oreg., in same capacity.
Eggers, C. W.	Traffic manager	500.00	7 years general traffic manager Willys-Overland Co. Previously general freight agent, Westinghouse, Church, Kerr Co.
Forde, T. J.	Assistant manager of purchases.	400.00	With Stone & Webster 7 years in the purchasing department.
Fryer, Herbert	Buyer	333.33	In charge of the purchasing of heating equipment, cantonment division, War Department, Washington: for 4 years sales engineer and assistant manager. Boston office of Babcock & Wilcox Co,
Gent, L. W.	Chief clerk, traffic division	200.00	Formerly traffic manager, Logan Bros. Grain Co., Kansas City; Stephenson Hay Co., Kansas City; Arkansas Valley Int. Ry. Co., Wichita, Kans.
Hall, L. C.	Head buyer, miscellaneous	250.00	Formerly purchasing agent, Mississippi River Pr. Co., Keokuk; with Stone & Webster organization for past 5 years.
Hamilton, R. E.	Manager of purchases	1,000.00	15 years with Stone & Webster; general purchasing agent since 1910; recently in charge of purchasing and traffic, cantonment division, War Department, under Col. I. W. Littell.
Johnston, L. F.	Head buyer, electrical	225.00	Recently sales engineer and assistant to vice president, Philadelphia Electric & Manufacturing Co.
Linehardt, C., jr.	Buyer	200.00	Formerly manager of Washington, Norfolk and Richmond and offices of Pierce Butler & Pierce Manufacturing Co., plumbing contractors.
Lodge, D. W.	Assistant to purchasing manager.	250.00	11 years with United States Engineer's Office, Philadelphia, as purchasing agent and inspector of materials.
Newton, Geo. W.	Buyer	250.00	Formerly manager of Leatherbee Lumber Co.; salesman for American Wood Working Machinery Co. Recently in charge of purchase of lumber for cantonment in San Antonio.
Noonan, E. M.	Head buyer steel products	300.00	For the past 3 years in charge of New England sales department of the Lorain Steel Co.
Snyder, H. E.	Buyer	200.00	Formerly shop superintendent of V. Clad & Sons Co. and Hodges Water Still Co. Recently in cantonment division, War Department.
Stapleton, J. F.	Head commissary buyer (must be raised to $250).	200.00	10 years with New York, New Haven & Hartford R. R. in purchasing department.

Summary of overhead employees receiving $200 per month and over—Continued.

PURCHASING DEPARTMENT (W. O. No. 107)—Continued.

Name.	Position.	Rate per month.	History.
Thomas, W. H.	Buyer	$200.00	3 years with Republic Rubber Co.
Young, Thomas S.	General assistant	250.00	Formerly assistant manager of sales for Whitehall Cement Manufacturing Co.; New England manager of sales for Vulcanite Portland Cement Co.
Total		6,658.33	

COMMISSARY DEPARTMENT (W. O. No. 110).

Hartzell, P. N.	Commissary manager	$416.66	Formerly in charge of commissary at Keokuk, Big Creek, and San Antonio, and had charge of feeding the Salem fire sufferers.
Weaver, C. P.	Assistant commissary manager.	200.00	6 years with Stone & Webster; 2 years with Shell Oil Co. as civil engineer.
Total		616.66	

FABRICATING DEPARTMENT (W. O. No. 210).

Anderton, J. H.	Electrical engineer building of ships.	$625.00	Formerly electrical engineer Stone & Webster for 9 years.
Armstrong, R. E.	Chief checker	300.00	Formerly in business for himself 2 years; previously with Pencoyd and Pennsylvania Steel Cos. and New York Shipbuilding Co. checking drawings and making structural steel drawings.
Bailey, O. P.	Structural steel inspector	300.00	Formerly president of Bailey, Marsh Co., Minneapolis, for 8 years; previously estimator and superintendent for J. & W. A. Elliott Co., Minneapolis, and chief estimator Minneapolis Steel & Machinery Co.
Balcom, H. G.	Structural engineer	1,000.00	Formerly with Berlin Bridge Co., engineer in charge of design, American Bridge Co.; structural engineer for Grand Central Station, New York.
Betts, Chas. E.	Squad chief on drafting	275.00	Formerly with Fore River Shipbuilding Co., Bethlehem Steel Co. (shipbuilding plant), Newport News Dry Dock Co. for 14 years as draftsman and all classes of construction work.
Bigelow, D. E.	Clerk	200.00	Formerly with Adam Co. as office manager and statistician. Previously statistician for 5 years with Poores Manual Co.
Blankenhorn, G. S.	Assistant to manager of machinery.	333.33	Formerly with Allis-Chalmers Mfg. Co. for 10 years as assistant to the chief mechanical consulting engineer of that company.
Brown, Dennis F.	Structural steel inspector	200.00	Formerly with American Hardware Co. for 10 years as superintendent of foundry; previously with American Bridge Co. as superintendent of forge department for 6 years.
Brown, F. L.	Material clerk (bills of material).	200.00	Formerly manager blue-print department St. Paul Foundry Co. for 8 years.
Burgum, H. P.	Structural steel inspector	250.00	Formerly with Bailey-Mark Co., Minneapolis, as estimator and engineer; previously with W. B. Lovell, Minneapolis, as estimator, for 8 years.
Cooper, F. A.	Steel inspector	250.00	Formerly with Guerper Engineering Co. as template foreman and general shop foreman for 2 years; previously with Ham Bridge Works for 5 years as template foreman.
Cunningham, J. E.	Superintendent of progress	275.00	Formerly designer steel and reinforced concrete with J. R. Worcester & Co.; assistant engineer in charge of construction Boston Elevated Ry.; mill engineer Willett, Sears & Co.; engineer with Fore River Shipbuilding Corporation.

Summary of overhead employees receiving $200 per month and over—Continued.

FABRICATING DEPARTMENT (W. O. No. 210)—Continued.

Name.	Position.	Rate per month.	History.
Davidson, T. R.	Assistant erector of machinery (now in designing office, Camden).	$250.00	Formerly with Cochran & Co., shipbuilders, Scotland, for 2 years; previously 8 years with various shipbuilding companies.
Davis, S. J.	Inspector (steel)	250.00	Formerly foreman steel erection, Cosden & Co. for 2½ years; previously erector for Oklahoma Iron Works.
Dawson, J. W.	Assistant to manager of hull fabrication.	500.00	Formerly with Lake & Torpedo Boats Co. as senior inspector; previously with Wm. Cramp & Sons, U. S. Navy Department, as inspector.
Dayton, Geo. S.	Engineer, assistant to Balcom.	333.33	Draftsman, checker, superintendent, and assistant engineer at following plants: Phoenix Bridge Co., Millican Bros., Post & McCord, New Jersey Steel & Iron Co., American Bridge Co.
Dembaugh, J. B.	Material clerk (bills of material).	200.00	Formerly with Colonial Navigation Co. for 8 years.
Dolan, C. J.	Steel inspector (structural)	250.00	Formerly with Wilkesbarre Structural Steel Co. as shop superintendent; previously for 5 years with Robert W. Hunt & Co. and New York Public Service Commission as inspector.
Dosdall, L. F.	Structural steel inspector	250.00	Formerly with New York, New Haven & Hartford R. R. as steel inspector; previously with McClintic-Marshall Co. for 17 years as shop foreman.
Dyer, E. F.	Assistant machinery superintendent.	300.00	Formerly with Lake Torpedo Boat Co. as general storekeeper for 4 years; previously with Fore River Shipbuilding Co. for 12 years as mechanical draftsman.
Ewing, W. M.	Structural steel inspector	200.00	Formerly with Lehigh Structural Steel Co. as manager; previously with General Construction Co. and McClintic-Marshall Co. as manager and designer.
Follows, A. E.	Correspondence clerk	225.00	Previously with Packard Motor Car Co., of Boston, as manager of specification department for 7 years; previously with Montreal Cotton Co. as private secretary to general manager.
Fouse, J. M.	Material inspection	300.00	Formerly with Dominion Bridge Co. as as assistant secretary for 4 years; previously with Carnegie Steel Co. for 3 years.
Gillette, G. L.	Manager hull fabrication	1,250.00	Formerly sales manager, Minneapolis Steel & Machinery Co.
Gillingham, G. L.	Inspector, fabrication	200.00	Formerly with H. N. Boureau Co. as office manager for 17 years.
Glines, E. S.	Office engineer in charge of drafting and bills of material.	450.00	Formerly designer and inspector with the Trussed Concrete Steel Co.; engineer with the General Electric; construction engineer with A. Wm. Sperry (Inc.); for several years chief draftsman with Stone & Webster.
Gribble, W. H.	Steel inspector	300.00	Formerly with the New York Public Service Commission as inspector for 3 years; previously with R. W. Hunt Co. and F. de P. Hone Co. as inspector for manager.
Harkrader, C. L.	Superintendent of material (assisting Gillette).	500.00	Formerly in charge of mill and office building details Minneapolis Steel & Mach. Co.; sales manager Motor Truck Sales Co.
Hasenbalg, H. B.	Leading draftsman (fabricating details).	275.00	Formerly with Riter-Conley Manufacturing Co. and Ellicott Machine Corp. as chief draftsman.
Helms, Peter E.	Structural steel inspector	250.00	Recently resigned.
Hill, Mark H.	Assistant superintendent of material.	333.33	Formerly with Kansas City Structural Steel Co. for 9 years as superintendent of erection and superintendent of deliveries.
Hoff, Geo. K.	Inspector (steel)	250.00	11 years with Pennsylvania R. R. as shop production and efficiency engineer.
Hunsberger, S.	do	250.00	Formerly with city of Philadelphia as steel inspector for 2 years; previously with New York Connecting R. R. for 4 years in the same capacity; previously with Lewis F. Shoemaker & Co. for 8 years in general shopwork.

Summary of overhead employees receiving $200 per month and over—Continued.

FABRICATING DEPARTMENT (W. O. NO. 210)—Continued.

Name.	Position.	Rate per month.	History.
Hutchinson, W. M.	Inspector (steel)	$250.00	Formerly with Hildreth Co. and Southern Ry. as inspector; previously with F. de P. Hone Co. for 6 years in same capacity.
Jenkins, George	Assistant machinery superintendent (hull fittings).	350.00	Formerly with Bethlehem Steel Co. (shipbuilding plant), as draftsman; chief clerk and assistant to outside superintendent.
Johanson, A	Structural steel inspector (following template making).	250.00	Formerly with Bethlehem Steel Co. for 9 years as template maker; previously with New York Shipbuilding Co. for 6 years.
Johnston, E. V. D.	Assistant secretary, fabricating department.	400.00	Assistant inspector of bridges, Pennsylvania Lines West; assistant master mechanic Jones & Laughlin; engineer for British South Africa Co.; mechanical engineer, maintenance department, Pennsylvania Steel Co.
Klossoski, T. J	Production superintendent on machinery fabrication (piping).	416.67	Formerly with Western Canada Cement & Coal Co. as manager; previously with National Portland Cement Co. and Edmonton Portland Cement Co. on designing and supervising construction.
Koch, Charles	Leading draftsman	200.00	Formerly with United States Government, Philadelphia Navy Yard, as assistant chief draftsman, order department.
Little, Wm. H	Requisition engineer	275.00	Formerly plant superintendent, Little & Baker Publication Co.; sump. superintendent, American Car & Foundry Co.; assembly and construction superintendent, Detroit Pressed Steel Co.
Lowe, H. L	Fabricating engineer	500.00	Formerly engineer with Stone & Webster; previously assistant editor Cassier's Magazine; chief engineer De Lavergne Machine Co.; assistant professor Carnegie Technical Institute; research engineer, General Motor Co.; vice president, National Light & Power Co.
Meixell, C. S	Steel inspector	300.00	Formerly with Hildreth Co. and Pittsburgh Testing Laboratory as inspector.
Meyers, J. S	Assistant engineer	225.00	Formerly with Oil City Boiler Works, Chambersburg Engineering Co., New York Shipbuilding Co. as designer and chief draftsman.
McConnell, J. L	Structural steel inspector	250.00	Formerly with Holobend & Ricke for nine years on designing and supervision.
McGranigham, J. R.	do	250.00	Formerly with United States Government, city of Philadelphia, Argentine Government, and Quebec Bridge Commission as inspector.
McKinley, Wm	Assistant structural engineer (assistant to Balcom).	350.00	Formerly with Phoenix Iron Co., Maryland Steel Co., Boston Bridge Works, Jones & Laughlin, and assistant operating manager, American Bridge Co.
Nelson, J. A	Assistant manager machinery fabrication (assistant to Carl Thomas).	500.00	Formerly with East Jersey Pipe Co., E. A. Gillespie Co., Union Iron Works Co., American Bridge Co. as superintendent, general manager, etc.
Pope, G. W	Assistant manager hull fabrication (assistant to Gillette).	750.00	Formerly with Wisconsin Bridge & Iron Co., American Bridge Co., Virginia Bridge & Iron Co., Koken Iron Works, and contracting manager on structural steel for Minneapolis Steel & Machinery Co.
Primrose, C. L	Chief draftsman	350.00	Formerly with Sargeant & Lundy, of Chicago, constructing engineers; one year squad chief with Stone & Webster; superintendent of construction; later Chicago agent for the Hoppe Feed Water Heater.
Raidabaugh, J. A	Machinery engineer	300.00	Formerly with Bethlehem Steel Co. (shipbuilding plant), as machinery estimator, draftsman, etc., for 8 years; previously with Allis-Chalmers Co. as erecting engineer.

Summary of overhead employees receiving $200 per month and over—Continued.

FABRICATING DEPARMMENT (W. O. NO. 216)—Continued.

Name.	Position.	Rate per month.	History.
Richmond, R. N...	Leading draftsman.....	$250.00	Formerly with several companies in England as hull inspector, draftsman, superintendent, etc.
Rooney, Joseph....	Steel inspector.....	200.00	Formerly with Standard Steel Car Co. for 8 years; previously with Carnegie Steel Co. for 10 years.
Rowse, W. C.....	Assistant superintendent, production (machinery fabrication, ships' fittings).	300.00	Formerly with H. H. Franklin Manufacturing Co, in charge of experiment laboratory for 2 years; previously instructor mechanical engineering at University of Manitoba; previously as development engineer for the Cutler Hammer Manufacturing Co.
Santry, Jos.....	Superintendent machinery fabrication (auxiliary machinery).	625.00	Formerly sales agent in Boston for pumps, turbines, evaporators, water heaters, and other steam equipment.
Simpson, George...	Inspector.....	292.00	Formerly with E. F. Johnson 3 years, naval architect; previously with Holendon & Wolf for 9 years as general superintendent; previously Brooklyn Navy Yard for 3 years as superintendent.
Smith, E. Y.....	.....do.....	300.00	Formerly with McClintic-Marshall Co. for 13 years as superintendent.
Smith, O. C.....	Production superintendent (assistant to Gillette).	833.34	Formerly superintendent Minneapolis Plant, American Bridge Co.; superintendent structural department Minneapolis Steel & Machinery Co.; vice president Kansas City Structural Steel Co.
Stewart, G. W.....	Structural steel inspector....	250.00	Formerly with Bethlehem Steel Co. as inspector for 16 years.
Stewart, S. P.....	Assistant engineer.....	250.00	6½ years with Stewart Boiler Works, Worcester, as mechanical engineer and assistant manager.
Thomas, Carl.....	Manager machinery fabrication (chief marine engineer).	1,250.00	Professor mechanical engineering, Johns Hopkins University. Recently in charge of training engineers and deck officers for shipping board in district from New York to Norfolk. For many years in charge of marine engineering designing offices.
Twichell, L.....	Assistant production superintendent (assistant to O. C. Smith).	300.00	Formerly with Hercog Iron Works; previously with private practice as architect for 9 years; previously with Minneapolis Steel & Machinery Co. as construction manager.
Varker, Wm.....	Assistant secretary of department.	400.00	Formerly construction engineer Charlottsville & Albemarle Ry. Co.; manager Southern District Engineering & Development Co; construction engineer Pennsylvania R. R. maintenance of way department.
Waite, George.....	Assistant engineer.....	275.00	Formerly with United States Government as local inspector of hulls at Providence, R. I.
Total.....	.....	22,767.00	

Senator JOHNSON. Pardon me, Senator Nelson, but there is one other question I wanted to ask, and I will then have concluded.

Senator NELSON. Certainly, go ahead; I did not want to interrupt you.

Senator JOHNSON. Do you deal with these gentlemen in any other capacity than as the representatives of this particular shipbuilding corporation? I mean by that, Admiral Bowles, are there any interlocking corporations in which they are the controlling interest, or a part of the controlling interest, as well as this shipbuilding corporation?

Admiral BOWLES. I will say yes.

Senator JOHNSON. And that corporation is what, please?

Admiral BOWLES. That is the New York Shipbuilding Co.

Senator JOHNSON. Well, are there any others?

Admiral BOWLES. Yes; I think there is one called the International Products Co., which has made a proposition to us, and we are about to negotiate with them.

Senator JOHNSON. The other day, in answer to a query of mine, I think it was stated that the financial backers of this particular corporation were the National City Bank of New York. Is that correct?

Admiral BOWLES. That I know nothing about.

Senator JOHNSON. You probably recall that Mr. Hurley made that response, do you not?

Admiral BOWLES. I do. It is common report, but I know nothing about it.

Senator JOHNSON. Now, the steel that is essential for these ships is furnished by the Government?

Admiral BOWLES. The orders are placed by the companies themselves; the Government pays the bill.

Senator JOHNSON. That is, the company places the order for the steel, but the bills are ultimately presented to the Government and paid by the Government?

Admiral BOWLES. Yes.

Senator JOHNSON. Now, I wanted to know whether or not these gentlemen who are in charge of the shipbuilding corporation are likewise connected with the Steel Corporation?

Admiral BOWLES. Not to my knowledge.

The CHAIRMAN. Does the New York Shipbuilding Co. continue its work at Camden, N. J.?

Admiral BOWLES. Yes.

The CHAIRMAN. They are building for the Government there?

Admiral BOWLES. Yes.

The CHAIRMAN. How many ships have they under contract there?

Admiral BOWLES. They have large contracts with the Navy, and our contracts for the Fleet Corporation I can show you. They are building at the present time requisitioned vessels, 23 in number, of an aggregate estimated cost of $12,495,000. In addition to that we have recently contracted with them for the construction of three transports.

The CHAIRMAN. They will need their organization at Camden?

Admiral BOWLES. They certainly will.

The CHAIRMAN. And the Government does not get very much benefit from that organization for the plant on Hog Island, then?

Admiral BOWLES. Well, the Government is obtaining very substantial assistance from the staff of the New York Ship Building Co. through the American International.

Senator NELSON. The American International, Admiral—this is the only shipbuilding they are engaged in, isn't it?

Admiral BOWLES. Directly.

Senator NELSON. And really the principal men of the other company, the New York company, formed this company for the purpose of getting this contract, didn't they?

Admiral BOWLES. I think not. I think the American International undertook this agency contract through their own efforts, and used the staff of the New York Ship Building Co. to assist them.

Senator NELSON. What is the date of this contract?

Admiral BOWLES. The date of this contract with them is September 13.

Senator NELSON. Under Admiral Capps's administration?

Admiral BOWLES. Yes.

The CHAIRMAN. Would it not be well to have that contract appear in the record?

Admiral BOWLES. Yes.

The CHAIRMAN. It is a sample of similar contracts. Is there any particular reason why that should not go in, Admiral?

Admiral BOWLES. No reason whatever.

The CHAIRMAN. What is the wish regarding this contract?

Senator JONES. I would like to see the contract go in, leaving out of the record the provisions within what time the ships shall be completed. That we can take up in executive session.

The CHAIRMAN. With that understanding, it will be put in.

Admiral BOWLES. Would it be more satisfactory, Mr. Chairman, if each Senator were furnished with a copy of this contract and it not put in the record at all?

Senator NELSON. Yes; that would be the best.

Senator JONES. I would like to see the whole contract in the record, aside from those provisions, myself.

The CHAIRMAN. Very well.

(The contract referred to is here printed in full, as follows:)

CONTRACT FOR CONSTRUCTION OF STANDARD TYPE COMPLETE VESSELS; COST-PROFIT SHARING.

[Contract No. 88 S. C. Hulls 492–541, incl.]

Contract made this 13th day of September, 1917, between American International Corporation, a corporation organized under the laws of the State of New York, party of the first part (herein called the agent), and United States Shipping Board Emergency Fleet Corporation, a corporation organized under the laws of the District of Columbia (herein called the owner), representing the United States of America, party of the second part.

Real estate.—Whereas the agent has agreed upon the execution hereof to acquire in fee certain real estate situated in Delaware County, Pa., located on the Delaware River near Philadelphia, back of the Mifflin Bar Dike and comprising part of what is known as Hog Island, and also certain land adjacent thereto west of Hog Island, which real estate consists of approximately 846 acres, whereof approximately 440 acres are owned by Charles N. Black, Francis H. Bohlen, and others, and approximately 406 acres are owned by Charles N. Black, which real estate will be fully described in the deed or deeds thereof, copies whereof, together with proof of the record thereof, the agent agrees to furnish to the owner as soon as possible and which is hereinafter called the "real estate"; and

Whereas the owner proposes to have constructed 50 or more cargo vessels of about 7,500 tons dead-weight capacity, in accordance with certain plans and specifications; and

Whereas the plans and specifications for said vessels, to be of uniform design, have been provided, adopted, and approved by the owner:

Now, therefore, this contract witnesseth that for and in consideration of the mutual agreements herein the parties hereto covenant and agree to and with each other as follows:

I. *Shipyard.*—The agent hereby agrees to construct and thereafter during the continuance of this contract maintain on the real estate such buildings, building slips, camp, commissary, hospital, plant, and appurtenances as may be necessary for the establishment of a shipyard and for the construction of 200 vessels in accordance with the aforesaid plans. The arrangement of buildings, building slips, camp, commissary, hospital, plant, and appurtenances shall be in ac-

cordance with plans and schedules to be mutually agreed upon by the parties hereto, and the construction thereof shall be subject to the inspection of the owner. The buildings, building slips, camp, commissary, hospital, plant, and appurtenances so constructed shall be and remain the property of the owner. The shipyard thus constituted shall be employed exclusively during the life of the contract on vessels for the owner, and the agent shall undertake no work for other parties at the shipyard, except with the written approval of the general manager of the owner.

The owner reserves the right to reduce, by written order given to the agent at any time within 60 days from and after the date of the execution of this contract, the proposed shipyard to such size and capacity as may be necessary for the construction of 50 vessels only, and in the event that the owner exercises this right the agent shall comply with the foregoing terms of this article as modified by such order.

II. *Organization.*—The agent will as expeditiously as possible organize a force of workmen, superintendents, and the administration necessary to carry out to completion the building of the vessels herein contracted for.

III. *Construction of vessels.*—As soon as the shipbuilding plant and organization are sufficiently advanced the agent shall proceed with the construction of 50 cargo vessels in accordance with the plans and specifications aforesaid, which are hereto attached and hereby made a part of this contract. The construction of said vessels (the word "vessel" as used throughout this contract being intended to include everything covered by the plans and specifications above referred to) shall conform in all respects to the aforesaid plans and specifications, including duly authorized changes therein. Said vessels shall be provided with fittings, equipment, machinery, devices, and appliances, and appurtenances of every kind with latest improvements, complete in all respects, and ready for service as provided for in the specifications, and shall be delivered to the owner afloat at the shipyard at Hog Island, near Philadelphia, Pa.

Alterations.—The owner shall have the right, but only by orders in writing, to make such reasonable alterations, omissions, additions, or substitutions in the plans and specifications not materially affecting the general design of the vessels as the owner may deem necessary. The agent agrees to accede to and carry the same into effect as though such alterations, omissions, additions, or substitutions were originally provided for in this contract. If by reason thereof the actual cost of the construction hereunder shall be increased, then the estimated basis cost shall be correspondingly increased. If the construction shall be rendered less expensive by reason thereof, the estimated basis cost shall be correspondingly decreased. The time for completion of each vessel shall be extended or decreased accordingly, as provided in Article IV hereof.

IV.

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Premiums and liquidated damages.—Should the agent have completed and ready for delivery to the owner any of said 50 vessels before the time provided in the above schedule, the owner agrees to pay as premium for earlier delivery for each completed vessel so delivered the sum of $300 for each and every day gained by such early delivery. Should the agent fail to have ready for delivery any of the said 50 vessels within the period specified for its delivery in the foregoing schedule, the agent agrees to pay to the owner (as liquidated damages) on each vessel not completed and ready for delivery within said scheduled period $300 for each and every day of delay in delivery of such completed vessel, but it is hereby agreed that the total premium so to be paid for any such vessel shall in no case exceed the sum of $14,000, and that the total liquidated damages so to be paid for any such vessel shall in no case exceed the sum of $14,000 or be in excess of such sum as will reduce the net fee to be paid to the agent for such vessel, as hereinafter provided for, below the average minimum fee mentioned in Article XXV hereof. Premiums or liquidated damages shall be added to or subtracted, so far as possible, from the final payment of the agent's fee herein provided for.

Extensions of time.—If the agent be delayed or obstructed in the performance or completion of the work provided for by this contract by the delay, neglect, or default of the owner, or by reason of alterations or additions by the owner, or the commandeering by the United States Government of materials on the ground or materials purchased or contracted for by the agent or owner but not delivered, or of facilities for the transportation of material and

(or) laborers, or by reason of strikes, fire, lightning, earthquake, flood, riot, insurrection, or war, or by reason of suspension of deliveries of material or machinery for any of the causes above stated, or by any other cause beyond the control of the agent so that the time of delivery of any of the vessels shall be delayed beyond the scheduled period for its delivery, the time of delivery shall be extended for a period equivalent to the time lost by reason thereof: *Provided*, That no such extension of time shall be granted for any particular delay unless the agent shall, within 10 days after the occurrence of such delay, notify the owner in writing of intent to claim such extension.

All extensions of time for the delivery of any of the vessels herein contracted for shall correspondingly postpone the dates at which liquidated damages on account of delays in delivery shall begin to accrue, but premiums shall be paid only in the event of completion and delivery of the vessels within the times specified in the above schedule, and no extension of time for any cause whatever shall operate to entitle the agent to premiums for early delivery, except that if the agent shall establish to the satisfaction of the owner that any delay has been caused solely because of changes ordered or instructions given by the owner or because of any default of the owner, the owner will consider extending the times within which premiums may be earned by the agent: *Provided*, That if the agent shall establish to the satisfaction of the general manager of the owner that actual delay in the completion of any of the 50 vessels herein contracted for has been exclusively caused by the fitting out of wooden hulls as provided for in Article XXVIII, such delay will be regarded as extending by the length of such delay the time in which premiums on each vessel so delayed may be earned by the agent.

V. *Contracts for materials, etc.*—The owner reserves the right to control through its duly authorized representative all orders for materials, machinery, equipment, supplies, and other purchases and commitments made under this agreement or in its own name to make any such order, purchase, or commitment, subject to advice to the agent so as to avoid duplication. All contracts and orders placed by the agent shall be in the name of the owner by the agent.

Payment for materials.—Such materials and parts to be used in the construction of the shipyard and of the vessels as are ordered by the agent shall be received and payment therefor made by the agent from the funds deposited by the owner, as provided for in Article XVII, direct to the individual, firm, or corporation with whom the order has been placed, at the price stipulated in the order and in accordance with such terms of payment as may be arranged by the agent with such individual, firm, or corporation. Any amounts paid for materials and parts to be used in the original construction of the shipyard will enter into the actual cost of the shipyard. Any amounts paid for materials and parts to be used in the construction of the vessels will enter into the actual cost of the vessels, as hereinafter provided for.

Quality of materials.—Such materials and parts to be used in the construction of the vessels shall be of the quality and characteristics best adapted to the various purposes for which they may be used, in so far as they conform to the requirements and specifications of the American Bureau of Shipping and (or) Lloyd's. The agent shall supply such assistance as may be required by the surveyors of the American Bureau of Shipping and (or) by inspectors of Lloyd's and (or) of the owner in making any tests and inspections of such materials and parts at the shipyard considered necessary by such inspectors or surveyors.

VI. *Workmanship.*—The workmanship on said vessels in detail and finish in all parts shall be first class and of the very best quality usual in American seagoing vessels of this class, and shall at all times be subject to the inspection of the American Bureau of Shipping and (or) Lloyd's and of the owner's inspectors as aforesaid, and the surveyors and inspectors may, with the approval of the owner or his duly authorized representative, direct the replacement of any unfit workmanship or materials if below the standard of the American Bureau of Shipping and (or) Lloyds for vessels of this class.

VII. *Inspection.*—The vessels shall be inspected during the progress of the work by the surveyors of the American Bureau of Shipping and (or) by the inspectors of Lloyd's, and the inspection certificates of the highest rating of these organizations for seagoing vessels must be obtained and furnished when the vessels are ready for delivery. Tonnage certificates in duplicate shall also be obtained from the Commissioner of Navigation and furnished at the time of delivery of the vessels to the owner. All expenses of such inspection

and certificates shall be considered as part of the actual cost of the vessel. In addition to the surveyors of the American Bureau of Shipping and (or) inspectors of Lloyd's the owner will employ at the owner's expense, but not to be included in actual cost, one or more inspectors of recognized ability in their profession to supervise and assist in the construction of these vessels. They and their assistant, described herein as the owner's inspectors, will represent the owner and will be required to watch closely the construction. Such one of them as shall from time to time be so designated by the owner will act as representative of the owner and be designated as the district officer, and to him shall be referred all questions arising under the contract at the shipyard. His decision on all important questions shall be in writing, and when rendered under his general authority or after approval by the owner shall be binding, subject in all cases to appeal as provided in Article XXII hereof.

VIII. *Trials.*—When each vessel is substantially complete, it shall be given a dock trial of not less than eight hours' duration. Should any defects or deficiencies develop during such trial, they shall be corrected by the agent to the satisfaction of the owner, and the dock trial repeated if considered necessary by the district officer. The owner may designate any number of vessels as a group and may select one vessel from such group to be tried on a measured mile course in the vicinity of the shipyard, in addition to the dock trial provided above, and its satisfactory performance as to speed and working of machinery shall be taken as representative of the speed and machinery performance of the said group of vessels. If the vessel selected shall not satisfactorily perform such test, the owner may direct that any or all vessels of the group be given speed and machinery tests of a like character. The agent agrees to take such additional steps as the owner may require to increase the speed of any vessel up to the speed specified in the specifications.

Delivery.—After the satisfactory completion of the trials and of all other work included in the plans, specifications, and authorized changes, each vessel shall be delivered afloat to the representative of the owner at the shipyard and shall thereupon be accepted, and the owner shall take possession of the vessel and be responsible for the safety thereof. The owner shall remove such accepted vessel from the shipyard within such time as will prevent encumbrance of the waterfront or interference with the work on other vessels.

IX. *Termination of contract.*—In case of failure (omission) of the agent at any stage of the work prior to completion, from any cause or causes within its control, to go forward with the work and (or) make progress toward its completion satisfactory to the owner, the owner may terminate this contract. In that event the owner may immediately enter the shipyard and take possession of it and of the vessels, materials, and equipment, and also withdraw without the signature of the agent any balance on hand in any agent-trustee account established under Article XVII hereof, and shall assume all commitments properly chargeable to the work hereunder. The owner shall thereupon cause to be taken and filed with the United States Shipping Board a full and complete statement and inventory of all work done or begun on or about the vessels and of all materials on hand or ordered or contracted for and applicable thereto, and a copy of such statement and inventory shall be furnished to the agent. Concurrently with the making of such statement and inventory, the owner may proceed with the construction of vessels either at the shipyard, with its equipment and facilities, or elsewhere, by contract or otherwise, and in its discretion use for this purpose all suitable materials on hand and included in the inventory. In case the owner shall thus terminate this contract the total amount to be paid hereunder, including all payments theretofore made, shall be the actual cost (computed in the manner defined in Article XIX hereof) of all work done under this contract up to the time of termination, plus such part of the agent's fees as the owner may decide to have been justly earned, plus the rental for the "real estate," which, after said termination, is used by the owner.

At the conclusion of such work as the owner may decide to do at the shipyard after terminating this contract, the appraisal provided for in Article XXI shall be made and the options referred to in said article shall become operative: *Provided, however,* That if within 15 days after written notice to the agent by the owner of the latter's intent to terminate this contract the agent can show to the satisfaction of the general manager of the owner reasonable industry and good faith in the prosecution of the work hereunder and that the delays have been caused by circumstances over which it had no control,

the agent shall be allowed such opportunity as the general manager of the owner may deem reasonable to complete the work.

X. *Insurance.*—The agent agrees to procure, so far as procurable, and thereafter maintain such insurance, in such forms, on such property, to cover such contingencies, in such amounts, and for such periods as the owner shall approve or require. The policies shall provide that the loss, if any, shall be payable to the owner for the use of the owner and (or) the agent, as their respective interests may appear. In the event that the owner shall see fit to dispense with insurance, in whole or in part, on its own property, the estimated basis cost, as set out in Article XX, shall be diminished by such a sum as the general manager of the owner deems fair and just. Should any vessel be constructively or actually a total loss, no additional vessel shall be built under this contract in order to replace it and to complete the 50 vessels herein provided for. The owner shall pay within 30 days after such total loss, to the agent on account of fee for work previously done on any vessel so lost, such sum as the general manager of the owner may determine to be fair and just.

XI. *Casualty insurance.*—The agent agrees to insure to the satisfaction of the owner, so far as insurance shall be procurable, against the liability of the agent and (or) the owner for injuries to or death of employees, workmen, or the public, or others in or about the work covered by this contract. The agent shall to the best of its ability protect the owner against claims for any infringements of patents or patent rights and for the use of any patented articles embodied or to be embodied in the vessels, by suitable agreements satisfactory to the owner as to the use of such patents or patent rights. The owner will assume all costs, expenses, and damages which it or the agent may be obliged to pay to procure such agreements or to pay by reason of any infringement of patents or patent rights or the use of patented articles not covered by such agreements, pursuant to a decree by a proper court in any litigation involving the use of such patents, but the agent shall assist the owner, at the latter's expense, save for services of the agent's employees, in furnishing such evidence as to the use of the patents and other matters of fact as may be required by the owner in such litigation. The agent shall promptly notify the owner in writing of any claims of infringement that it may from time to time be brought to the agent's attention.

XII. *Labor.*—The agent will comply with all instructions not contrary to law as to wages or conditions of employment of labor on this contract given to it in writing by the owner. If by reason of any such instruction the cost of any vessel hereunder shall be increased, then the estimated basis cost shall be correspondingly increased as provided in Article XX. The owner, in its discretion, will give such assistance as shall be within its power in securing and retaining the labor necessary for the work under this contract. The agent will promptly notify the owner of any labor difficulties.

XIII. *Protection to property.*—The agent shall provide the usual protection for the property of the owner and of the agent at the shipyard, and shall furnish such additional protection as the owner may require; such additional protection, however, shall be paid for by the owner, but shall not be included in the actual cost of the work to be done under this contract for the purpose of comparison with the estimated or revised estimated basis cost.

XIV. *Owner to use powers for expedition.*—The owner will, in its discretion, use its influence and such powers as it may have by law to secure with the utmost practicable expedition and at the minimum cost, consistent with the existing conditions, the facilities, utilities, parts, materials, and supplies required for the work under this contract, and will in its discretion also use its influence and powers to secure rapid and (or) preferential transportation from any and all railroad companies and public-service companies for workmen, employees, materials, parts, and supplies required for the work.

XV. *Title.*—It is agreed that title to all vessels either completed or under construction, in so far as they shall have been inspected and approved by the owner shall be in the United States of America and that the title to all material for the furtherance of work under this contract however and by whomsoever contracted for or assembled or set up in the shipyard or used in the construction of work under this contract shall be in the owner, at all times. Nothing contained herein, however, shall be construed as a waiver by the owner of its right to direct the replacement of unsatisfactory workmanship and (or) materials.

Inspector's certificates.—No inspector's certificate given or payment made under the terms of this contract (except on final payment) shall be conclusive evidence of the performance of this contract either in whole or in part, and no payment shall be construed to be a waiver of the right of the owner to direct the replacement of unsatisfactory workmanship and (or) materials.

XVI. *Liens.*—The agent will keep the vessels in the course of construction free and clear from all claims, liens, or encumbrances of any kind or description (except liens or encumbrances accruing through the default of the owner, and (or) for the existence of which the owner shall be responsible and except claims and liens of the agent), and shall, before delivery of each vessel, show to the satisfaction of the owner that such vessel is free and clear from any claims, liens, and encumbrances, except as aforesaid. The agent agrees that it will, to the extent that funds are available under the terms of Article XVII, promptly pay for all labor, material, or other service rendered to it in connection with the work under this contract.

XVII. *Payment of actual cost.*—The total actual cost (as defined in Article XIX) of constructing said buildings, building slips, camp, commissary, hospital, plant, and appurtenances, and the total actual cost of constructing the vessels herein contracted for, shall be paid by the owner to the agent as follows:

Establishment of cash fund.—In order to provide the cash funds necessary for carrying on the work under this contract the owner will from time to time deposit in advance to the credit of the agent as trustee for the purposes of this contract, in such bank or banks as may be agreed upon, such sums as may be necessary to constitute and to keep constituted a fund from which to finance the work, to provide for payments to be made for the buildings, building slips, camp, commissary, hospital, plant, and appurtenances to be erected and installed on the real estate, for materials, and for wages and salaries of persons exclusively employed upon the work hereunder at the shipyard and at the agent's Philadelphia office. Such sums shall be drawn upon only by checks countersigned by the district officer or the owner's representative for payments to be made by the agent under this contract, and each payment shall be charged against the buildings, building slips, camp, commissary, hospital, plant, and appurtenances the property of the owner, or as a payment on account of the cost of the vessels as the case may be. Any interest paid by the bank or banks on such deposits is the property of the owner, and upon the final completion of this contract the owner may withdraw without the signature of the agent any balance on hand in any agent-trustee account established under this article. The agent shall file with the owner an indemnity bond, secured by a first mortgage on the "real estate" the property of the agent at Hog Island, near Philadelphia, Pa., which shall secure to the owner the proper application of all funds placed to the credit of the agent as aforesaid.

Upon the purchase of the real estate by the owner, or if the owner shall fail or refuse to keep and perform its obligations to purchase or to exercise its option to purchase the real estate under the provisions of Article XXI hereof upon completion of the work hereunder, as the case may be, the owner shall, if the agent so requests, satisfy and discharge of record said bond and mortgages: *Provided, however,* That the agent shall, as a condition precedent to its right to such satisfaction and discharge, furnish to the owner a bond with good and sufficient sureties in such sum as the general manager of the owner may require in lieu of the aforesaid indemnity bond.

Other payments.—For other items of actual cost, including those incurred in outside offices chargeable to the work under this contract but not paid from the aforesaid funds, and the rental for the "real estate," payment shall be made to the agent by the owner monthly within 15 days after the submission of bills covering such actual costs, certified to by the district officer. The agent's fee shall be payable at the times and in the manner specified hereinafter.

XVIII. *Accounts.*—The agent shall establish and keep suitable accounts and records which shall show the actual cost of all the work under this contract. The preservation of said accounts and records for a reasonable time shall be provided for by agreement of the parties at the termination of this contract.

The accounts and records of the agent shall at all reasonable times be open to inspection by the owner. All statements and accounts relating to expenditures and cost hereunder shall be made by the agent in such form and supported by such original papers as may be required by the general manager of the owner. The methods and principles of keeping costs shall be adequate for the determination of actual costs. All information obtained from the accounts and records shall be treated as confidential.

Auditors.—The owner may send auditors to the shipyard and to the agent's offices to supervise and assist in the accounting.

Account and inventory of plant.—The actual cost of constructing the building, building slips, camp, commissary, hospital, plant and appurtenances, and of alterations and additions thereto, shall be computed in the manner defined in Article XIX hereof and shall be kept in a separate detailed plant cost account and inventory.

Account of vessels.—The actual cost of the 50 vessels herein contracted for shall also be computed in the manner defined in Article XIX hereof and shall be kept in such manner and segregated into such items as may be necessary for the purposes of this contract and as may be agreed upon, and particularly as may be necessary for the ascertainment of the agent's fee on each vessel hereinafter provided for.

XIX. *Actual cost.*—For the purpose of this contract actual cost, whether of the construction of the shipyard or of the construction of vessels (the latter to include the maintenance and operation of the shipyard in its entirety), is defined as follows:

1. The net costs, after deducting all discounts obtained, of supplies, materials, machinery, tools, equipment, and parts thereof directly entering into or expended in the execution of the work, including freight and other transportation costs of materials, and of the other items in this paragraph enumerated.

2. Costs of direct labor employed in the execution of the work.

3. *Overhead expenses.*—These shall be taken to include indirect labor and materials and the general and administrative expenses and other expenses applicable to and necessary in connection with the execution of the work herein contracted for (including in actual cost the maintenance, operation, and repair of buildings, building slips, camp, commissary, hospital, plant, and appurtenances).

Specifically, the overhead expenses shall include the following:

(*a*) All items of overhead expense contained in the schedule of the estimated basis cost annexed to and forming part of this contract, with such modifications as may be mutually agreed upon, but in accordance with the general principles laid down in this paragraph 3.

(*b*) The rent of the real estate during such period as it may be used in the execution of the work hereunder, which shall be at the rate of $102,360 per year, such sum being 6 per cent of the actual cost to the agent of the acquisition of the real estate.

(*c*) Taxes and assessments of every kind (except for permanent improvements) imposed on the real estate, buildings, building slips, camp, commissary, hospital, plant, and appurtenances constituting the shipyard or arising from any of the operations included in the work to be done under this contract, including license fees, but excluding all Federal taxes, which latter shall be borne by the agent without reimbursement.

(*d*) Subject to the rules hereinafter stated, transportation of laborers and (or) employees, salaries and expenses of the agent's general manager, purchasing and traffic agencies, engineering and drafting forces, and accounting and clerical forces employed and maintained by the agent at its offices in Philadelphia and at the shipyard exclusively on the work hereunder, and an equitable proportion of salaries and expenses of other similar agencies and forces employed and maintained by the agent at said offices or elsewhere; but the agent's fee herein provided for shall cover the services of its executive officers, who for the purposes of this contract shall be deemed to include its president, its board of directors, vice presidents, treasurer, and secretary, and their respective assistants not immediately attached to the shipyard, and their salaries and emoluments shall not be chargeable to the work under this contract.

(*e*) The cost of casualty and liability insurance and the cost of such bonds, fire and other insurance as the owner may approve or require; all losses due to accidents or casualties not compensated by insurance or otherwise and legal and other expenses in connection therewith sustained or incurred by the agent, including the cost of settlements made with the approval of the owner, and the cost of the removal and replacement of defective or unsatisfactory workmanship or materials; but if any such losses and expenses and (or) necessity for any such replacement shall be caused by the fault or neglect of the agent's executive officers, managerial and superintending employees, foremen, and leading men, there shall be deducted from the agent's fee such part

of such losses and (or) cost of such replacement as, together with deductions under Articles IV and XX, shall not result in an aggregate average deduction from such fee of more than $14,000 for each vessel or reduce the agent's average fee for vessels constructed hereunder below the minimum fee provided for in Article XXV hereof.

The following rules are hereby mutually agreed to and shall be followed with reference to actual cost:

Excessive and unusual salaries or emoluments shall not be paid by the agent or charged as a part of the actual cost.

The rent of the real estate being allowed for in actual cost, no depreciation or appreciation of its value shall be allowed as part of the cost.

The overhead charges incurred in the work under this contract shall be equitably prorated between and charged to the actual cost of the shipyard and the actual cost of the vessels, as the case may be.

The buildings, building slips, camp, commissary, hospital, plant, and appurtenances being the property of the owner, no charge on account of their use by the agent shall be made nor shall any charge for depreciation of such buildings, building slips, camp, commissary, hospital, plant, and appurtenances be allowed as part of the cost to the agent, but such repairs, renewals, and upkeep to the buildings, building slips, camp, commissary, hospital, plant, and appurtenances as may be necessary during the life of this contract shall be considered as part of the overhead expense on the vessels as aforesaid.

All materials and supplies purchased for but not used in the construction of the vessels herein contracted for shall be and remain the property of the owner and the value thereof shall be credited on the cost of the vessels. The salvage value of scrap, waste, containers, etc., originally purchased for the shipyard and (or) vessels and disposed of during the life of the contract shall be credited to the cost of the shipyard and (or) of the vessels, as the case may be.

All revenue, if any, from the operation of the camp, commissary, hospital, and other facilities or from rebates, refunds, etc., shall be accounted for by the agent to the owner and applied in reduction of the cost of the vessels or of the buildings, building slips, camp, commissary, hospital plant, and appurtenances, as the case may be.

XX. *Agent's fees.*—The amount of the fee to be paid the agent for services (exclusive of the rental value of the "real estate" hereinbefore specified, and subject to additions or subtractions as provided in this contract) is based upon a schedule of the estimated basis cost of each of said 50 vessels to be constructed under this contract, which is hereto annexed and forms a part of this contract.

Estimated basis cost.—Such estimated basis cost is $1,100,000, as set forth in detail in said schedule containing the estimated costs of labor, of materials, and of overhead expense. Should the actual cost of materials, and (or) the rates of wages paid be different from those set forth in the aforesaid schedule, the estimated total material basis cost shall be increased or diminished by the actual amount of the change in cost of the materials, and the estimated total labor basis cost shall be increased or diminished in the ratio that the rates of wages actually paid bear to the original schedule rates of labor. The estimated basis cost shall also be revised on account of any changes ordered as provided in Articles III and XII. Should such revisions be made the new estimated cost shall be considered as the revise estimated basis cost. Should the actual cost as ascertained by audit of the books and accounts of the agent be equal to the revised estimated basis cost, the aforesaid fee payable to the agent shall be $55,000 on each of said 50 vessels completed, subject to additions and subtractions as elsewhere provided in this contract. Should the actual cost upon audit be less than the revised estimated basis cost, such saving shall be divided into three equal parts, one of which shall accrue to the agent, one to the owner, and the third shall be distributed in such manner as may be directed by the owner, with a view to recognizing faithful and efficient performance of duty on the part of workmen and employees. Should the actual cost as ascertained by the aforesaid audit be greater than the revised estimated basis cost, one-half of such increase shall be deducted from the agent's fee aforesaid, and the remainder shall be borne by the owner: *Provided*, That in no case shall the agent's fee for each of said 50 completed vessels, after making all deductions and (or) additions provided for in any article hereof, be less than the average minimum fee mentioned in Article XXV hereof. Said fee on each vessel shall be payable to the agent as follows, viz:

One-half of the minimum fee when the vessel is half finished, as certified to by the district officer, or otherwise established to the satisfaction of the general manager of the owner, and one-half of such minimum fee upon the completion of satisfactory trials, and the remainder, if any, upon audit of the actual cost of the vessel as above provided for.

XXI. *Additional vessels.*—The owner may at its option at any time not less than 60 days prior to the completion of all vessels, theretofore contracted for or ordered under this contract, order additional vessels of the same or different size and type to be built by the agent at said shipyard. (The agent shall give the owner 15 days' notice in writing of the expiration of the time for the exercise of the owner's option to order additional vessels.) Except as to estimated basis cost, the amount of the agent's fee, times for completion and readiness for delivery, and (when such additional vessels are of a different size and (or) type from those herein contracted for) the plans and specifications therefor, such additional vessels shall be constructed under the terms and provisions covering the first 50 vessels under this contract. Should the owner order additional vessels the shipyard shall be used and the actual cost of the vessels be paid for in the manner herein provided for the first 50 vessels under this contract.

The estimated basis cost for each of the 150 or lesser number of additional vessels of the same size and type as those herein contracted for shall be $1,050,000 and the normal fee of the agent for the construction of each thereof shall be $52,500, to which shall be added the savings and (or) premiums and from which shall be subtracted the deductions and (or) liquidated damages, in neither case exceeding an average of $14,000 for each vessel as provided in other articles hereof; the agent's average fee, however, to be not less than $38,500 for each vessel. For all additional vessels of the same size and type in excess of 150 and for all additional vessels of a different size and (or) type ordered by the owner under this Article XXI, the estimated basis cost, the amount of the agent's fee, the time of delivery, and (when such vessels are of a different size and (or) type) the plans and specifications therefor shall be the subject of mutual agreement; but the agent's fee shall in no case be greater for the same size and type of vessel than the fee in this Article XXI provided for.

Not less than 60 days prior to the completion of all vessels theretofore contracted for or ordered hereunder the owner shall notify the agent in writing whether it desires any additional vessels constructed as in this article provided and the number of additional vessels, if any, which it desires to have built. If at the time of the completion of the work hereunder less than 100 additional vessels shall have been ordered by the owner under this article, then the owner shall forthwith purchase the "real estate" from the agent and pay to the agent therefor the amount of the original cost of the acquisition thereof by the agent, to wit, the sum of $1,706,000, plus any further sum in excess of $110,000 which the agent may be obliged to pay to the Commonwealth of Pennsylvania for a patent or patents for a certain part of the real estate the title to which is now in controversy, and in addition thereto the amount of any assessments or taxes paid by the agent on account of permanent improvements, and upon such payment the agent shall convey the real estate to the owner by good and sufficient warranty deed. In case the owner shall in such event fail to purchase and pay for the "real estate" as aforesaid within 60 days, then and in that event all buildings, building slips, and other permanent improvements and structures then located upon the real estate shall become and be the property of the agent.

Options.—If upon the completion of the work hereunder the owner shall have ordered 100 or more additional vessels under this article, then and in that event the options hereinafter expressed in this article shall become effective. In such event the owner shall, not less than 60 days before the completion of the work hereunder, appoint an appraiser, and the agent shall likewise appoint an appraiser within 5 days after written notice of the appointment of such appraiser by the owner, and the two appraisers so chosen shall select a third. If either party shall fail to appoint an appraiser as aforesaid, the other party may select a second appraiser, and the two so selected shall choose a third as aforesaid. The three appraisers so appointed shall appraise the then value of the buildings, building slips, camp, commissary, hospital, plant, and appurtenances, the property of the owner, as shown by the detailed plant cost account and inventory kept by the agent as herein provided for in Article XVIII, and also of parts, materials, supplies, and scrap purchased for the work on the

vessels, but not incorporated or to be incorporated in them on completion, or otherwise disposed of under this contract.

The appraisers shall take into consideration the actual costs as shown by the inventory which shall be furnished them, the conditions as regards wear and tear and depreciation, the desirability of the buildings, building slips, camp, commissary, hospital, plant, and appurtenances for the purposes of a shipyard, their replacement value at market prices at the time of the appraisal, and the condition of the shipbuilding business generally with reference to the going value of a constituted shipyard at the time of the appraisal. The appraisers shall complete their appraisal and deliver one copy thereof to the owner and one to the agent within 30 days after their appointment.

Within 15 days from the receipt of said appraisal, the owner shall notify the agent in writing whether it elects to purchase for cash the "real estate" of the agent, as defined and described in the preamble to this contract, at the original cost of its acquisition by the agent, viz, $1,706,000 plus any further sum in excess of $110,000, which the agent may be obliged to pay to the Commonwealth of Pennsylvania as aforesaid and plus also all assessments and taxes paid by the agent for permanent improvements made during the term of this contract. If the owner elects to purchase said "real estate" the agent shall convey the same to the owner by good and sufficient warranty deed and the owner shall pay therefor, in cash, within 30 days after giving such notice.

Should the owner notify the agent that it elects not to purchase said "real estate," or fails to so notify the agent of its election, then the agent, within 15 days thereafter, shall notify the owner in writing whether it elects to purchase, for cash, the buildings, building slips, camp, commissary, hospital, plant, and appurtenances, the property of the owner, together with the parts, materials, supplies, and scrap, at the value thereof, as fixed by said appraisal.

Should the agent elect to purchase the aforesaid buildings, building slips, camp, commissary, hospital, plant, and appurtenances, together with the parts, materials, supplies, and scrap at the appraised value thereof, said property shall be conveyed by the owner to the agent and the purchase price thereof paid, in cash, by the agent to the owner within 30 days after such notice of its election to purchase.

Should neither the owner nor the agent exercise their respective options to purchase the property of the other, or should either the owner or the agent elect to purchase the property of the other, but fail to pay the purchase price therefor within said period of 30 days or as soon after such period of 30 days as the deed herein shall have been tendered, then and in either of said events, the owner shall forthwith remove from the "real estate" all of the buildings, building slips, camp, commissary, hospital, plant, appurtenances, and parts, materials, supplies, and scrap, the property of the owner, and readily removable, and thereupon the owner shall have no further title to, or interest in, said "real estate" belonging to the agent, or to or in said shipyard.

XXII. *Disputes.*—In case the parties fail to agree as to any matter connected with this contract, or any doubt or dispute arises as to the meaning, construction, or effect of this contract or of any of the provisions or covenants hereof, or of the plans and specifications which are a part hereof, or as to the manner of doing the work provided for hereunder, or as to the materials used or to be used, or the time to be allowed or the amounts to be paid or allowed for alterations, omissions, additions, or substitutions, or as to any other particular, the matter shall be promptly referred to and determined by the general manager of the owner and his decision in writing shall be final and binding upon the parties except as hereinafter provided.

In case after delivery of a completed vessel to the owner under this contract (but only in that event) the agent shall deem that it is aggrieved by any decision of the general manager as to any disputed matter hereunder of any kind regarding such vessel and shall give written notice to the owner to that effect within 30 days after delivery of such vessel to, or after final payment for such vessel by the owner, and (or) in case after completion of all work of constructing the shipyard (but only in that event) the agent shall deem that it is aggrieved by any decision of the general manager as to any disputed matter hereunder of any kind regarding such construction and shall give written notice to the owner to that effect within 30 days after completion of all such construction, such matter shall be determined by a board which shall consist of

three disinterested naval architects or engineers or experts to be appointed, one by the owner, one by the agent, and the third by the two so appointed. Such board shall within 30 days after submission of such matter to it make its determination, and its finding (made by a majority of the board) shall be conclusive on both parties: *Provided, however,* That if the agent fails to notify the owner in writing of its intent subsequently to appeal any decision of the general manager, adverse to it, within 10 days after written notice of such adverse decision, the decision of the general manager shall become final and binding upon both parties without appeal to the board herein provided for. The cost of any such arbitration shall be borne equally by the owner and the agent.

XXIII. *Not assignable.*—This contract shall not, nor shall any interest herein, be transferred by the agent to any other person or persons save with the consent of the owner in writing.

XXIV. *Notices and payments by mail.*—All notices in writing from the agent to the owner shall be sent by registered mail or by prepaid telegram (confirmed by mail) addressed to the United States Shipping Board Emergency Fleet Corporation at Washington, D. C., or be delivered personally to an executive officer or the district officer of the owner.

All notices from the owner to the agent shall be sent by registered mail or by prepaid telegram (confirmed by mail) addressed to American International Corporation at 120 Broadway, New York City, or be delivered personally to an executive officer of the agent.

Payments hereunder required to be made direct to the agent shall be made by the owner by check addressed to the agent by mail at 120 Broaway, New York City.

XXV. *Minimum fee.*—It is the intention of this contract that, notwithstanding any other provision thereof, the agent's fee shall average not less than $41,000 for each vessel completed and accepted, but this shall apply only to the 50 vessels first provided for; and the agent's fee for the first 150 or lesser number of additional vessels of the same size and type as those herein contracted for shall average not less than $38,500 for each such vessel completed and accepted as provided in Article XXI hereof.

XXVI. *Protection of owner's interest.*—The agent, in all its acts hereunder, shall use its best efforts to protect and subserve the interests of the owner. The agent hereby agrees that it will procure all necessary permits and licenses, and obey and abide by all laws, regulations, ordinances, and other rules applying to such work, of the United States of America, of the State or Territory wherein such work is done, of any subdivision thereof, or of any duly constituted public authority.

XXVII. *Control by owner.*—The agent shall in the performance of its agreements hereunder comply with and be bound by all directions, instructions, and decisions of the owner, or its authorized representatives; and compliance by the agent with any such direction, instruction, or decision shall be a justification and protection to the agent for any action so taken.

XXVIII. *Fitting out wooden hulls.*—The owner may, when the construction of vessels hereunder will not thereby be materially delayed, bring to the shipyard wooden hulls for the purpose of installing machinery therein and equipping them ready for use. The owner may at its option do such work itself, or may, upon terms to be mutually agreed upon, require the agent to do it.

XXIX. *Participation in profits.*—No Member or Delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this article shall not apply to this contract so far as it may be within the operation or exception of section 116 of the act of Congress approved March 4, 1909 (35 Stats., 1109).

XXX. *Provisions to be added if desired.*—This contract is executed and delivered upon the understanding that, if desired by the United States Shipping Board Emergency Fleet Corporation, a provision, satisfactory in form and terms to the United States Shipping Board Emergency Fleet Corporation, restricting the hours of labor of laborers and mechanics employed by the agent or by subcontractors and (or) providing for the payment of extra compensation for overtime work, shall be inserted in the contract, with the same force and effect as if inserted in the contract before the execution and delivery thereof.

In witness whereof the parties have caused these presents to be executed in triplicate by their proper corporate officers and their corporate seals to be hereto affixed and attached on the day above stated.

AMERICAN INTERNATIONAL CORPORATION,
By CHARLES A. STONE, *President.*

O. K. D. P. R.
[SEAL.]
Attest:

JOSEPH S. LOVERING,
Assistant Secretary.

Countersigned:
F. A. VANDERLIP, *Director.*

UNITED STATES SHIPPING BOARD
EMERGENCY FLEET CORPORATION,
By EDWARD N. HURLEY, *President.*

O. K. W. L. C.
[SEAL.]
Attest:

LESTER SISLER, *Secretary.*

Schedule of estimated basis cost.

1. Material f. o. b. yard (details attached hereto)	$570,000
2. Direct labor, 740,000 hours, at 37 cents	275,000
This average rate is based on the weighted average of detail rates shown in the attached schedule. For comparative purposes the actual average rate shall be obtained by dividing the total labor cost by the total hours of labor.	
3. Overheads (schedule of items attached)	255,000
Total	1,100,000

Schedule of material costs.

HULL.

Spoiled material	$1,000
Launching	2,000
Temporary service and maintenance	2,000
Steel for hull	160,000
Stern, stern frame, and rudder frame, etc	16,000
Other hull work, etc	50,000
Carpenter and joiner work, etc	30,000

HULL OUTFITTING.

Side lights	2,000
Doors and hatch fittings	3,000
Deck castings	2,000
Miscellaneous fittings	11,000
Cook's, steward's pantry outfit, portable furniture, etc	8,000
Anchors and chain	18,000
Deck outfit	12,000
Rigging	2,000
Awnings and covers	1,000
Heating system	1,500
Ventilating system	1,500
Refrigerating system, etc	4,000
Sanitary and fresh-water systems	3,000
Fire system	2,000
Bilge and ballast systems	6,000
Communicating systems	2,000
Painting steelwork	1,000
Cementing	3,000
Galvanizing and nickel plating	1,000
Nonconducting material	2,000

MACHINERY.

Spoiled material	500
Trials	500
Temporary firing and maintenance	500

PROPELLING MACHINERY.

Main turbines and gear, etc	72,000
Main condensers, etc	8,000
Oiling gear and water service	7,000
Shafting and bearings	7,000
Propeller wheels	1,500
Hoisting and handling gear	1,000
Flor plates, ladders, and gratings, etc	2,500
Independent machinery, etc	18,000
Engineer's outfit and workshop machinery	1,000
Main boilers, furnaces, and fittings, etc	48,000
Fuel-oil system	1,500
Uptakes and stacks, main and auxiliary	1,500
Copper and brass piping	5,000
Iron and steel piping	2,000
Stop valves and cocks	3,000
Coverings and lagging, pipes, and valves	1,000
Miscellaneous	2,500

AUXIIARY MACHINERY.

Steam exhaust piping to deck machinery	1,500
Steering gear and transmission	7,000
Windlasses and capstans	7,000
Winches and cargo-handling gear, etc	9,000
Electric plant, etc	7,500
Spares for machinery	7,000
Total	570,000

Detail schedule of wage rates in force at New York Shipbuilding Corporation in July, 1917.

Hull department:	Cents.
Ship carpenters—	
Leaders	64
Carpenters	39
Stage builders	36
Helpers	33
Apprentices	16
Ship erectors—	
Leaders	50
Erectors	33
Painters—	
Leaders	40
Painters	33
Cleaners	28
Ship fitters—	
Leaders	56
Fitters	48
Helpers	27
Linermen	27
Tool grinders	30
Tool keepers	25
Bolters—	
Leaders	43
Bolters	31
Chippers and calkers—	
Leaders	56
Chippers	35
Packers	25

Hull department—Continued.	Cents.
Yard laborers—	
Leaders	40
Laborers	28
Roofers	26
Janitors	24
Carters	27
Concreters	49
Storekeepers—	
Clerks	39
Tenders	33
Checkers	36
Receivers	33
Helpers	28
Chauffeur	28
Messengers	12
Iron and steel store—	
Checkers	38
Clerks	26
Handlers	28
Rivet store	26
Locomotive cranemen	40
Lumber yard—	
Inspector	40
Handlers	26
Drillers—	
Leaders	41
Drillers	31

Hull department—Continued.	Cents.
Riveters—	
Leaders	50
Riveters	35
Holders-on	30
Heaters	25
Passers	23
Ship riggers	42
Ship laborers—	
Leaders	34
Laborers	28
Cleaners	28
Handlers	28
Cementers	31
Yard riggers:	
Leaders	45
Riggers	38
Truckers	28
Locomotive cranemen	45
Crane tenders	38
Yard carpenters	36
Pattern shop:	
Leaders	57
Patternmakers	55
Apprentices	18
Helpers	23
Storekeepers	47
Machine hands	44
Joiners	39
Machine shop:	
Leaders	61
Machinists	43
Machine hands	38
Helpers	25
Handy men	30
Chippers	33
Babbiters	33
Riggers	30
Toolsmiths	35
Inspector	72
Toolkeeper	38
Apprentices	15
Die sinkers	32
Boiler shop:	
Leaders	53
Boiler makers	42
Fitters	36
Flangers	41
Chippers and calkers	42
Drillers	30
Riveters	45
Holders on	33
Handy men	30
Helpers	28
Heaters	25
Layers out	63
Acetelene burners	40
Light-iron works	38
Punchers	28
Tool keepers	33
Mold loft:	
Inspectors	42
Layers out	26
Engine installation department:	
Leaders	63
Machinists	42

Engine installation department—Continued.	Cents.
Handy men	32
Helpers	31
Carpenters	38
Tool keepers	32
Firemen	32
Apprentices	16
Light plate shop:	
Leaders	48
Tinsmiths	38
Light-iron workers	41
Layers out	44
Wire workers	43
Drillers	32
Chippers and calkers	41
Handy men	30
Helpers	28
Forge shop:	
Leaders	54
Blacksmiths	38
Anglesmiths	40
Drop forge	35
Rivet makers	40
Helpers	30
Blacksmith hands	29
Hammer drivers	26
Pipe shop:	
Leaders	60
Pipe fitters	39
Machinists	39
Plumbers	42
Handy mne	30
Helpers	30
Tool keepers	33
Chippers and calkers	45
Copper shop:	
Leaders	58
Coppersmiths	50
Pipe fitters	47
Testers	35
Galvanizers	29
Handy men	31
Helpers	29
Apprentices	19
Electricians:	
Leaders	45
Electricians	38
Machinists	41
Conduit workers	38
Wiremen	40
Helpers	25
Welders	40
Crane repairers	35
Apprentices	19
Drillers	33
Templet makers:	
Templet makers	51
Helpers	28
Apprentices	19
Messengers	21
Angle and plate shop:	
Leaders	53
Machine hands	33
Punchers	30
Planers	32

Angle and plate shop—Contd.	Cents.
Layers out	42
Furnace	31
Coal press	31
P. W. clerks	39
Checkers	30
Drillers	32
Chippers	35
Bolters	30
Assemblers	42
Riveters	39
Heaters	22
Handlers	32
Helpers	28
Shearmen	36
Toolkeepers	33
Acetylene burners	35
Crane followers	33
Joiner shop:	
Leaders	62
Joiners	33
Machine hands	44
Helpers	28
Saw filers	42

Joiner shop—Continued.	Cents.
Draftsmen	30
Apprentices	15
Timekeepers:	
Leaders	48
Timekeepers	33
Janitors	21
Counters	33
Clerks	18
Testers	39
Messengers	11
Surgeon	62
Yard clerks	25
Watchmen:	
Leaders	25
Watchmen	20
Crane operators	30
Power house:	
Engineers	33
Oilers	24
Firemen	30
Coal passers	24
Water tenders	33

It is assumed that this schedule is still in force at date of contract. Should any discrepancies develop corrections will be made accordingly.

C. A. S.
W. L. C.

SCHEDULE OF ITEMS OF OVERHEAD EXPENSE REFERRED TO IN SUBDIVISION (A) OF PARAGRAPH 3 OF ARTICLE XIX AND ARTICLE XX.

Administration salaries and expense.
Clerical and office salaries.
Supervision of productive work.
Technical supervision.
Technical and shop inspection.
Inspection and certificates of registration societies.
Insurance, fire, accident, marine, personal injury, liability, compensation, etc.
Protection, guards, etc.
Accounting.
Cost accounting.
Templet vessel.
Experimental work.
Expense of obtaining employees.
Transportation of laborers and employees.
Welfare.
Office rent and supplies.
Traveling expenses.
Postage, telephone, and telegraph.
Legal expense.
Subscriptions to technical publications.
Rental of real estate and office.
Clearing and care of yard and shop.
Purchase expense.
Templets.
Stores charges.
Laying out.
Drafting and listing.
Traffic chasing and routing.
Freight, expressage, and demurrage (not directly chargeable).
Light, heat, water, and power.
Temporary light and wiring (not directly chargeable).
Yard and shop service.
General supplies for yards and shops.
Tests and trials.
Repairs, maintenance, and renewal to plant.
Small and loose tool equipment charges.
Pattern lumber.
Royalties and patent rights.
All other items of expense not charged to material or labor cost of the vessel or the cost of the yard.

NOTE.—Overhead for accounting purposes may be divided into shop, indirect, and general overhead. Total, $255,000.

AMERICAN INTERNATIONAL CORPORATION.

[Transcript from records of executive committee, Sept. 13, 1917.]

The secretary presented to the meeting the terms of a contract between this corporation, as party of the first part, and the United States Shipping Board Emergency Fleet Corporation, as party of the second part, providing for the construction of standardized ships. On motion duly made and seconded, it was

Resolved, That the contract be, and the same hereby is, in all respects approved, ratified, and confirmed; and the president, or a vice president and secretary or treasurer, or assistant secretary or assistant treasurer of this corporation be, and they hereby are, authorized and directed to execute the same in the name and under the seal of this corporation, and any one of the directors of this corporation present at this meeting be, and is hereby, authorized and directed to countersign and deliver to the United States Shipping Board Emergency Fleet Corporation a duplicate of said contract; and the proper officers and agents of this corporation be, and they hereby are, authorized and directed to perform and carry out said contract; and the secretary of this corporation be, and is hereby, authorized and directed to file a duplicate of said contract among the records of this corporation; and the secretary of this corporation be, and is hereby, authorized and directed to certify under the seal of this corporation and deliver to said United States Shipping Board Emergency Fleet Corporation a true copy of this resolution.

STATE OF NEW YORK,
County of New York, ss:

Cecil Page, being duly sworn, deposes and says that he is secretary of the American International Corporation, a corporation organized and existing under and by virtue of the laws of the State of New York; that he has compared the foregoing resolution with the original thereof, duly adopted at a meeting of the executive committee of said corporation, duly called and held on the 13th day of September, 1917, and that the same is a true copy of said original and that a quorum was present at said meeting.

[SEAL.] CECIL PAGE.

Sworn to before me this 19th day of September, 1917.

[SEAL.] IRA C. RANSBURG,
Notary Public, Kings County.

[Contract No. 83 S. C. Fifty vessels, hull Nos. 492 to 541, inclusive. Option exercised 10/23/17 for 70 additional vessels, hull Nos. 669 to 738, inclusive.]

UNITED STATES SHIPPING BOARD,
EMERGENCY FLEET CORPORATION.
Washington, October 23, 1917.

AMERICAN INTERNATIONAL CORPORATION,
120 Broadway, New York City.

DEAR SIRS: The United States Shipping Board Emergency Fleet Corporation hereby exercises its option under Article XXI of the contract of September 13, 1917, between it and the American International Corporation to order, and does hereby order, seventy (70) vessels in addition to the fifty (50) covered by said contract, but of a different size and type from said first fifty (50) vessels. The said seventy (70) additional vessels are to be built under the terms of said contract of September 13, 1917, except as follows:

(1) Said seventy (70) additional vessels are to be fifteen-knot troop and cargo vessels of approximately eight thousand tons dead weight capacity, and are to be built in accordance with plans and specifications prepared and approved by the United States Shipping Board Emergency Fleet Corporation, a copy of which plans and specifications is attached hereto and hereby made a part hereof.

(2) The estimated basis cost of each of said seventy (70) additional vessels, exclusive of troop accommodations, is one million six hundred fifty thousand dollars ($1,650,000), and a schedule of such estimated basis cost is hereto attached and hereby made a part hereof.

(3) The amount of the normal fee to be paid the American International Corporation for the construction of said vessels, exclusive of troop accommodations, shall be eighty-two thousand five hundred dollars ($82,500) for each vessel, to which shall be added premiums at the rate of five hundred dollars ($500) per day for each and every day gained in the delivery of each vessel, and also sums on account of savings in cost as provided in said contract of September 13, 1917, and from which shall be subtracted liquidated damages at the rate of five hundred dollars ($500) per day for each and every day of delay in the delivery of each of said vessels, and also sums on account of overrun of cost as provided in said contract of September 13, 1917, provided that the total premium to be paid for each of said vessels on account of early delivery shall not exceed the sum of seventeen thousand five hundred dollars ($17,500)

for each vessel and that the total of liquidated damages and of all deductions shall in no case exceed the sum of seventeen thousand five hundred dollars ($17,500) for such of said vessels, so that the average minimum fee of the American International Corporation for the construction of said vessels, after subtracting all deductions and liquidated damages to be subtracted as provided in said contract of September 13, 1917, shall not be less than sixty-five thousand dollars ($65,000) for each of said seventy (70) additional vessels.

(4) The deliveries of said seventy (70) additional fifteen-knot vessels shall alternate with the deliveries of the fifty seventy-five-hundred-ton dead-weight capacity cargo vessels covered by said contract, as follows:

Twenty-five (25) of said seventy-five-hundred-ton type of cargo vessels are to be delivered in thirteen and one-half (13½) months from September 13, 1917.

Twenty-five (25) of the additional fifteen-knot eight-thousand-ton dead-weight capacity type hereby ordered are to be delivered within fifteen months from September 13, 1917.

Twenty-five (25) of said seventy-five-hundred-ton dead-weight capacity type are to be delivered within eighteen and one-half (18½) months from September 13, 1917.

Twenty-five (25) of said fifteen-knot eight-thousand-ton dead-weight capacity type are to be delivered within twenty (20) months from September 13, 1917.

Twenty (20) of said fifteen-knot eight-thousand-ton dead-weight capacity type are to be delivered within twenty-two (22) months from September 13, 1917.

The American International Corporation will, if the United States Shipping Board Emergency Fleet Corporation so requests, install on said vessels, troop accommodations upon the basis of said contract of September 13, 1917, the basis price and fee for such installation to be agreed upon at the time of such request.

It is agreed that this order of seventy (70) vessels of said fifteen-knot eight-thousand-ton type is equivalent to an order of one hundred (100) vessels of said seventy-five-hundred-ton type, and therefore fulfills the obligation on the part of the United States Shipping Board Emergency Fleet Corporation as set forth in Article XXI of the said contract of September 13, 1917, and thereby releases the said United States Shipping Board Emergency Fleet Corporation from its obligation to purchase the real estate from the agent.

Except as above provided, all the terms and provisions of said contract of September 13, 1917, shall apply to the construction of the seventy (70) additional vessels hereby ordered.

Please indicate your acceptance of this order at the bottom hereof.

Very truly, yours,

W. L. CAPPS, *General Manager.*

Accepted:

AMERICAN INTERNATIONAL CORPORATION,
By CHARLES A. STONE, *President.*

SUMMARY OF AMERICAN INTERNATIONAL CORPORATION.

[NOTE.—"Owner," Emergency Fleet Corp. "Agent," American International Corp. Contract 83 S. C. Sept. 13, 1917.]

NEW YORK CORPORATION.

OFFICE, NEW YORK CITY; PLANT, HOG ISLAND.

Work to be done.—(a) Fifty *cargo* vessels (Art. III, p. 2). 7,500 tons D. W. C. Owner's plans and specifications (p. 1).

(b) Seventy 15-knot *troop* and cargo vessels (herein called troop vessels), approximately 8,000 tons D. W. C. Owner's plans and specifications. Option (p. 1).

(c) Agent to construct plant and organize necessary force (ARTS. I & II, p. 2).

(d) Agent will, if owner requests, install on vessels troop accommodations; price and fee for such installation to be agreed upon. Option (p. 2).

(e) Owner may use plant to install machinery in wood hulls or require agent to do so at terms to be fixed (Art. XXVIII, p. 24).

Deliveries.—Afloat shipyard at Hog Island, near Philadelphia (Art. III, p. 3), after dock trial, and if desired, sea trial for one of a group of vessels (Art. VIII, p. 8). Deliveries to be made on the following dates from the date of contract:

Cargo vessels: 25 within 13½ months; 25 within 18½ months.

Troop vessels: 25 within 15 months; 25 within 20 months; 20 within 22 months.

Purchase price.—Owner pays (a) cost of plant, not including real estate; (b) cost of vessels (Art. XVII, p. 12); (c) agent's fee (Art. XX, p. 17).

Actual cost.—Actual cost is defined (Art. XIX); it includes direct labor and materials and overhead.

(a) Plant cost is separated from vessel cost (Art. XVIII, p. 14), and overhead is prorated between them (Art. XIX, p. 17).

(b) Cost of vessels includes rent of real estate (Art. XIX, p. 15); maintenance and operation of shipyards (p. 15, top).

(c) No charge is made for executive salaries of agent (p. 16, top). If part of agent's force engaged on other work, overhead prorated (i. d.).

(d) Federal taxes borne by agent (p. 15, bottom).

Extra charges.—Borne by owner, but not included in actual or estimated cost. (1) Additional protection to plant (Art. XIII, p. 11). (2) Owner's inspectors (Art. VII, p. 7).

Estimated cost of vessel.—Cargo vessel, $1,100,000 each; *troop* vessel, $1,650,000 each; the estimated cost in each case is subject to increase or decrease as follows: (a) Wages varying from schedule (p. 18). (b) Material varying from schedule (i. d.). (c) Changes due to alterations (Art. III, p. 3). (d) Compliance with owner's instructions as to wages or conditions of labor (Art. XIII, p. 11). (e) Decrease if insurance dispensed with (Art. X, p. 10).

Fee—Cargo, 5 per cent; troop, 5 per cent.—(a) If actual cost equals estimated cost, $55,000 per cargo vessel; $82,500 per troop vessel.

(b) Fee increased: (1) If actual cost less than estimated, agent gets one-third of the savings. Owner and employees each one-third (Art. XX, p. 18). (2) Premiums for early delivery not exceeding $14,000 per *cargo* vessel (Art. IV, p. 4). $17,500 per *troop* vessel. Option (p. 1).

(c) Fee decreased: (1) If actual cost exceeds estimated cost one-half of excess is deducted (Art. XX, p. 18). (2) Losses caused by neglect of agent's executive or managers (Art. XIX (c), p. 16. (3) Liquidated damages for delay not exceeding $14,000 per *cargo* vessel (Art. IV, p. 4), or $17,500 per *troop* vessel. Option (p. 1). (4) These deductions not to reduce average minimum fee below $41,000 per *cargo* vessel (Art. XXV, p. 23), or $65,000 per *troop* vessel. Option (p. 2).

Plant.—(a) To consist of such buildings, building slips, camp, commissary hospital, plant, and appurtenances as may be necessary.

(b) Agent owns real estate (p. 1). (He agreed to acquire and has acquired the fee.)

(1) Owner has option to purchase real estate at $1.706, plus any further sum in excess of $110.000, which agent may be obligated to pay to the Commonwealth of Pennsylvania for a patent to part of the land plus assessments and taxes paid by agent for permanent improvements during contract period (Art. XXI, p. 21).

(2) Owner pays actual rent of $102.360 (6 per cent of cost) (Art. XIX, p. 15).

(c) All plant constructed belongs to owner (Art. I, p. 2).

(d) Owner limits plant cost to $21.191.006.

Payments.—(a) Of fee: $20,500 as each *cargo* vessel, and $32,500 as each *troop* vessel is half finished. $20,500 and $32,500, respectively, as each *cargo* vessel or *troop* vessel makes complete satisfactory trial (Art. XX, p. 18). Remainder, if any, upon audit of actual cost of each vessel (i. d.).

(b) Of cost: Owner from time to time provides funds to be deposited in trustee account, withdrawn against checks, countersigned by owner's representative. Agent gives bond secured by first mortgage on plant to insure proper application of funds (Art. XVII. p. 13). Rent of real estate and some outside costs are paid by owner monthly 15 days after submission of certified bills (Art. XVII, p. 14).

Premiums and liquidated damages.—Three hundred dollars per day per *cargo* vessel, and $500 per day per *troop* vessel. accordingly as delivery is advanced before or retarded beyond the schedule dates (Art. IV, p. 4). Option (p. 1). Extension of time granted because of conditions beyond agent's control extends period for computation of liquidated damages but (except where delay due to fitting out of wooden hulls) not for the computation of premium unless owner deems advisable (Art. IV, pp. 5, 6). Premiums or liquidated damages not to exceed $14.000 per *cargo* vessel (Art. IV, p. 4), or $17,500 per *troop* vessel (Option. p. 1).

Control over work, labor, subcontracts, and conduct of agent.—(a) Owner controls purchases and commitments; contracts are made in owner's name (Art. V, p. 6).

(b) Owner's instructions as to wages and conditions of labor are obeyed (Art. XII, p. 11).

(c) All directions, instructions, and decision of owner are to be followed (Art. XXVII, p. 24).

(d) Agent to subserve owner's interest at all times (Art. XXVI, p. 23).

Option.—(a) Additional vessels: Exercised as shown.

(b) On plant: (1) Owner has option to purchase at price stated above (*Plant* (b) (1). This option to be exercised after the making of an appraisal, making of which is to be commenced 60 days before completion of the work (p. 20). (2) If owner does not purchase, agent has option to purchase the buildings, etc., constructed, at appraisal value (p. 21).

(c) If neither agent nor owner exercises option, owner may remove property (pp. 21, 22).

Termination.—Owner has right to terminate if progress is unsatisfactory, in which case it may take over plant and facilities, pay agent actual cost of work done up to termination, plus fee which owner decides agent has earned, plus future rental (Art. XIX, p. 9).

Admiral BOWLES. Now, Mr. Chairman, I would like to give you the full record with reference to the requisitioning of vessels in private shipyards, and with your permission I would like to explain various things in connection with it and then submit the facts.

You will remember that the power to do this was contained in the act of Congress approved June 15——

Senator JONES. Admiral, before you go on with that, if we have any inquiries with reference to these other contracts don't you think we had better have them all together? It seems to me we ought to have a sample of one of these contracts where they took the contract on a cost-plus basis.

Admiral BOWLES. This analysis, Senator, will give you very full information about it, and that can be printed in the record, and the contracts are all at your service.

Senator JONES. I know, but we are making a record here that will be for the service of somebody else as well as us. Just as we have a sample of those contracts with agents, I would like to have in the record a sample contract of these other two classes in addition to this analysis.

Senator NELSON. We can let the Admiral pick out a sample of each and put it in the record.

The CHAIRMAN. Can you do that, Admiral? Can you pick out a sample of each?

Admiral BOWLES. I presume they are not all perhaps uniform even then.

Senator JONES. I suppose they are not absolutely uniform, but the general features are probably similar.

The CHAIRMAN. I will ask to have put in the record a sample of each of those contracts.

(The contracts referred to were subsequently furnished by Admiral Bowles and are here printed in full, as follows:)

[Specimen of actual cost plus guaranteed fee contract. Contract 47 W. H., July 21, 1917. This type of contract was an early one, this being the last of that type executed. Emergency Fleet Corporation is referred to herein as "Owner."]

SUMMARY OF PROVISIONS.—ALABAMA DRY DOCK & SHIPBUILDING CO. (ALABAMA CORPORATION), MOBILE, ALA.

Work to be done.—Two wood hulls. Owner's original drawings and specifications (p. 1, Art. I).

Deliveries.—Afloat contractor's works, Mobile, Ala. One hull eight months and one nine months after date of contract (p. 1, Art. I).

Purchase price.—Owner pays the cost and fixed fee (p. 1, bottom).

Cost.—Cost is defined in the contract, following, so far as applicable, the definition of cost in the munitions manufacturers tax law (p. 2, middle of page). The cost of the hull includes the amount which the owner authorized to be expended for plant construction or extension; this cost of plant construction or extension being thus charged to and spread over all of the hulls (p. 3, subsection g).

Fee.—Contractor receives a fixed fee, which is guaranteed to be $20,000 per hull (p. 2, top).

Premium and liquidated damages.—No provision.

Protection on labor and materials.—No provision. Owner pays all cost.

Plant.—Cost of construction of plant or of extensions to plant authorized by owner is included in and spread over the cost of hulls and is borne by owner (p. 3, subsection g). Plant so constructed or extensions so made belong to and continue to be property of owner, but may be purchased by contractor at termination of contract at an agreed valuation (p. 3, near bottom). Items of overhead expense, indirect expense, and plant cost must be submitted to owner in advance (p. 2, middle). Outside of contract, owner has imposed a reasonable limit upon amount to be expended for plant and extensions thereto.

Payments. (*a*) *Of items of cost.*—Monthly within 15 days after submission of bills (p. 5, top) and pay rolls certified to by owner's auditor covering approved cost for previous month (p. 5, top).

(*b*) *Of fee.*—$20 000 upon acceptance of each hull (p. 2, top).

Subcontracts and orders.—Owner has full control over orders and commitments for materials, equipment, and supplies. All such orders are placed by contractor as agent in the name of the owner. Contractor has no pecuniary liability thereunder where written approval of owner is obtained (p. 5, middle).

Other general provisions.—Provisions for determination of cost (p. 3, bottom); inspectors and auditors and accounts (pp. 4, 5); alterations (p. 5, Art. III); insurance (p. 6, Art. IV); forfeiture (p. 7, Art. V); title to work and materials (p. 8, Art. VI); settlement of disputes (p. 8, Art. VII); time of essence (p. 9, Art. VIII); liens (p. 9, Art. IX); compliance with instructions as to wages and conditions of employment (p. 10, Art. XI); prohibition against assignment (p. 10, Art. XII). Claims and patents (p. 9, Art. X).

[Contract No. 47, hull Nos. 332–333.]

CONTRACT FOR CONSTRUCTION OF STANDARD TYPE COMPLETE HULL—COST—PROFIT SHARING.

Contract made this 21st day of July, 1917, between Alabama Dry Dock & Shipbuilding Co., a corporation organized under the laws of the State of Alabama, party of the first part (herein called the contractor), and United States Shipping Board Emergency Fleet Corporation, a corporation organized under the laws of the District of Columbia, party of the second part (herein called the owner).

For valuable considerations, the receipt of which is hereby acknowledged by both parties, and in consideration of the mutual promises of the parties, it is agreed as follows:

I. *Work to be done.*—The contractor hereby agrees to construct, in accordance with the standard drawings and specifications of the owner (original) hereto attached and hereby made a part of this contract, under the rules and regulations of the American Bureau of Shipping, two (2) wood cargo-carrying hulls suitable for cargo-carrying steamers.

Deliveries.—The contractor agrees to deliver said hulls according to said drawings and specifications, to the owner, afloat at the works of the contractor at Mobile, Ala., as follows:

The first hull to be delivered on or before eight months from the date of this contract, and the second hull to be delivered on or before nine months from the date of this contract.

II. *Payment.*—In consideration of the performance of this agreement by the contractor, the owner agrees to pay therefor a lump sum estimated to be $300,000 for each such completed hull; such purchase price to be the actual cost of the work plus the contractor's profit as hereinafter provided.

The owner guarantees the contractor a profit of $20,000 on each completed hull, payable to the contractor when such hull is delivered to and accepted by the owner. The contractor agrees that the owner may withhold from said

purchase price of $300,000 per hull any amount over the actual cost of the work plus $20,000 (so that the contractor's profit on each hull shall be limited to $20,000).

The owner assumes no responsibility for inability to obtain or have delivered the plant or ways, or any part thereof.

Actual cost.—For the purposes of this contract, the actual cost shall be generally as defined in the United States revenue bill of September 8, 1916, section 302, in so far as the requirements of said revenue bill are applicable to and not inconsistent herewith.

The actual cost shall include the following and items similar thereto in principle, provided that all items of overhead or indirect cost included in paragraphs (*b*) to (*e*) of this article, and all items under paragraphs (*f*) and (*g*) shall, as far as possible, be submitted to the owner in advance for its approval, and no item so submitted in advance and disapproved by the owner shall be payable to the contractor:

(*a*) The cost of labor and materials, machinery, equipment, and supplies entering into the building or construction of the hulls, and other direct charges (such as insurance on the hulls).

(*b*) A proper proportion of running expenses, including ordinary rentals, cost of repairs and maintenance, light, heat, power, insurance (including liability and compensation insurance), management, salaries, and other indirect charges.

(*c*) A proper proportion of interest accrued and paid on debts or loans contracted to meet the needs of the business and the proceeds of which have been actually used to meet such needs.

(*d*) A proper proportion of taxes of all kinds accrued and paid with respect to the business or property.

(*e*) A proper proportion of losses actually sustained in connection with the business, including losses from fire, flood, storm, riot, vandalism, any act of God, acts of war, or other casualties, and not compensated for by insurance or otherwise.

(*f*) A reasonable allowance, according to the conditions, for depreciation of values of plant and property (account being taken of exceptional depreciation of extensions, increases, and additions to plant and property) specially acquired for or devoted to the manufacture or erection of the work or the construction of the hulls under this contract provided the same have not been paid for by the owner under (*g*).

(*g*) The cost of labor, materials, machinery, equipment, and supplies (other than real estate) for the establishment of and extensions, increases, and additions to plant and property of the contractor authorized by the owner specially acquired for or devoted to the building or construction of the hulls under this contract and rentals actually paid for such establishments, extensions, increases, and additions authorized by the owner.

Physical property and unexpired leases represented by items of cost included in paragraph (*g*) supra paid for by the owner shall continue to be the owner's property after termination of this contract, but may be purchased by the contractor at such termination at a valuation to be agreed upon.

Determination of cost.—The determination of the actual cost as above defined shall be made by and under the direction of George W. Goethals as general manager of the owner, or his successors in such office (herein called "the general manager"), and his decision shall (except as hereinafter stated) be binding on both parties. Wherever possible, he will lay down in advance the methods to be followed in ascertaining and determining the actual cost, and where this can not be done will act on claims submitted by the contractor. He will determine methods to be followed by the contractor in preparing bills and by engineers and auditors in certifying to them, and will determine the items which must be referred for his decision. He will, so far as possible, determine in advance the ratio of amortization referred to in paragraph (*f*) supra and allowances to be made for indirect charges.

Naval architect.—The owner will employ one or more inspectors of recognized ability in their profession to supervise and assist in the construction of these hulls. They and their assistants, described herein as the owner's inspectors, will represent the owner and will be required to watch closely the construction. Such one of them as shall from time to time be so designated by the owner will act as the representative of the owner and to him shall be referred all questions arising under the contract at the works. His decision on all questions when rendered under his general authority or after approval by the

owner shall be binding, subject in all cases to appeal to the general manager of the owner.

Auditors.—The owner may send an auditor to the work of the contractor to supervise and assist in the accounting.

The accounts and records of the contractor shall at all reasonable times be open to inspection by the owner. All statements and accounts relating to expenditures and cost hereunder shall be made by the contractor in such form as may be required by the general manager. No change shall be required in the present methods and principles of keeping costs by the contractor, provided the general manager deems them adequate for the determination of actual costs. All information obtained from contractor's accounts and records shall be treated as confidential.

Time of payments.—Payments shall be made to the contractor by the owner monthly within 15 days after the submission of bills to cover the approved actual cost for the previous months, as defined under paragraphs (*a*) to (*e*), inclusive, and together with the additional approved actual cost, as defined under paragraphs (*f*) and (*g*).

No payment shall be made except when bills are certified by one of the owner's inspectors or an auditor. Final approval of all bills by such inspectors or auditors shall be necessary for payment.

Orders.—The owner shall have full control of all orders for materials, machinery, equipment, supplies, and other purchases and commitments made under this agreement (including establishment of and extensions, increases, and additions to plants and property), and all contracts and orders placed by the contractor shall be in the name of the owner by the contractor as agent, and it is understood that the contractor shall assume no pecuniary liability under or by reason of such obligations where made with the written approval of the owner.

Inspector's certificates.—Every facility shall be afforded by the contractor to the inspectors appointed by the owner. It shall be the duty of such inspectors, either personally or by deputies, to inspect all materials and workmanship entering into the construction and to accept such materials and (or) workmanship as are in conformity with specifications and promptly to reject all materials and all workmanship which do not comply with the specifications, such condemnation, if any, of materials to be made by such inspectors before the same are worked or put into construction if opportunity so to do is afforded by the contractor. Said inspectors shall also have the right of rejection after material is worked or put into construction if facilities are not given for inspection prior thereto.

III. *Alterations.*—The owner shall have the right, but only by orders in writing, to make such reasonable alterations, omissions, additions, or substitutions not materially affecting the general design of the hull as the owner may deem necessary. The contractor agrees to accede to and carry the same into effect, as though such alterations, omissions, additions, or substitutions were originally provided for in this contract. In case the parties are unable to agree as to the effect of such alterations, omissions, additions, and substitutions, the dispute shall be determined as provided by Article VII hereof. If the contractor be delayed or obstructed in the transaction or completion of the work provided for by this contract by the delay, neglect, or default of the owner, or by reason of alterations or additions by the owner, or the commandeering by the United States Government of materials on the ground or materials purchased by the contractor but not delivered, or by reason of strikes, fire, lightning, earthquake, flood, riot, insurrection, or war, or by reason of suspension of deliveries of material or machinery for any of the causes above stated, or by reason of instructions given by the owner under Article XI hereof, or for any other reason beyond the control of the contractor, beyond the time herein fixed, the time of delivery shall be extended for a period equivalent to the time lost by reason thereof. In the event that parties shall not agree as to such extension, such extension shall be determined in accordance with Article VII hereof.

IV. *Insurance.*—The contractor will during the progress of the work on said hulls and until delivery of them place and maintain insurance on each of them in proper amount by companies approved by the owner to cover work done and materials on hand for or appropriate to the use of the hulls in and about the premises of the contractor. Such insurance shall provide against fire and marine risks, lightning, settling of staging, breakage of ways, and risks of launching, and shall be for an amount to be fixed by the owner, not less than the sum of the payments made under this contract from time to time, provided

that the amount of insurance required shall not at any time exceed the amount available in the insurance market. The policies shall provide that the loss, if any, shall be paid to the owner for the use of the owner and the contractor as interest may appear.

V. *Forfeiture.*—In case of failure or omission of the contractor at any stage of the work prior to completion from any cause or causes to go forward with the work and make progress toward its completion satisfactory to the owner, the owner may declare this contract forfeited. In that event the owner may immediately enter the works and premises of the contractor and take possession of the hulls and materials and equipment. The owner shall thereupon cause to be taken and filed with the United States Shipping Board a full and complete statement and inventory of all work done or begun on or about the hulls and of all materials on hand applicable thereto. On filing of such statement and inventory with the United States Shipping Board the owner may proceed with the completion of the hulls in accordance with this contract either at the works of the contractor with its equipment, yard, and facilities, or elsewhere, by contract or otherwise, and in its discretion use for this purpose all suitable materials on hand and included in the inventory. In case the owner shall thus cause this contract to be forfeited, the amount to be paid hereunder shall be the actual cost (as defined in Art. II hereof), unless theretofore paid, plus a reasonable rental for the appliances, yards, and facilities of the contractor which, after said forfeiture, are used by the owner, not to exceed the agreed profit aforesaid.

Provided, however, That if the contractor can show to the satisfaction of the general manager of the owner reasonable industry and good faith in the prosecution of the work hereunder, and that the delays have been caused by circumstances over which he had no control, the contrator shall be allowed such opportunity as the general manager of the owner may deem reasonable to complete the work within the time prescribed by this contract.

VI. *Title.*—It is agreed that as the payments provided for herein are made by the owner on account of materials ordered by or assembled or set up in the yard of the contractor or used in the construction hereunder, the same to the extent of the payments made shall become the property of the owner. Nothing contained herein, however, shall be construed as a waiver by the owner of its right to object if the terms of this contract have not been complied with, nor construed as acceptance of any work which fails to fulfill the requirements of this contract.

VII. *Disputes.*—In case the parties fail to agree as to any matter connected with this contract, or any doubt or dispute arises as to the meaning or effect of this contract or of the drawings and specifications which are a part hereof, or as to the manner of doing the work provided hereunder, or as to the materials used or the time to be allowed or the amounts to be paid or allowed for alterations, omissions, additions, or substitutions, or as to any other particular, the matter shall be promptly referred to and determined by George W. Goethals, the general manager of the owner, or his successor at the time in office, and his decision shall be final and binding upon the parties.

In case after delivery of a completed hull to the owner under this contract (but only in that event) the contractor shall deem that it is aggrieved by any decision of the general manager as to any disputed matter hereunder of any kind and shall give notice to the owner to that effect within 30 days after delivery or after final payment by the owner, such matter shall be determined by a board, which shall consist of three naval architects or engineers or experts to be appointed—one by the owner, one by the contractor, and one by the American Bureau of Shipping. Such board shall within 30 days after submission of such matter to it determine what, if any, further sum shall be due by the owner to the contractor hereunder on account of such delivered hull, and its finding (made by a majority of the board) shall be conclusive on both parties.

VIII. *Time of essence.*—It is agreed by both parties that time is of the essence of this contract. The contractor agrees to commence and carry through to completion the work under this contract with dispatch and that it will not enter into any other contract or undertake any other work or service at its yards which will interfere in any material manner with the completion of the work undertaken hereunder.

IX. *Liens.*—The contractor shall keep the hulls in course of construction free and clear from all claims, liens, or any encumbrances of any kind or description and shall before delivery show to the satisfaction of the owner

that the hulls are free and clear from every claim, lien, and encumbrance except claim or lien of the contractor.

X. *Claims and patents.*—The contractor agrees to protect the owner from all claims arising from accidents or casualties to employees or workmen on or about the work covered by this contract and to indemnify the owner against the same.

The contractor shall be responsible for all claims, if any, made against the owner for any infringements of patents or patent rights and for the use of any patented articles and shall defend and save harmless and indemnify the owner against all such claims and from all costs, expenses, and damages which it may be obliged to pay by reason of any such infringement of patents or patent rights or of the use of any patented articles, provided that the owner will in all instances notify the contractor of any claims made against it by reason of any such infringement or use of patented articles at the time when such claim is made and will promptly notify the contractor of any suit or suits brought against it therefor and give the contractor an opportunity to defend the same, and provided that no payment shall be made by the owner unless with the consent of the contractor or pursuant to a decree by a proper court in such litigation, and provided that the contractor shall not be liable in the event the owner specifically orders the use of the patent or patented article whether or not the existence of the patent be known to the parties hereto.

XI. *Labor.*—The contractor will comply with all instructions as to wages or conditions of employment of labor on this contract given to it in writing by the owner.

XII. *Not assignable.*—This contract may not be assigned by the contractor without the consent of the owner in writing, provided, however, that nothing in this contract shall be construed as prohibiting the assignment of payments due or to become due to the contractor for the purpose of obtaining credit for furthering the construction hereby undertaken, but the owner may, by writing, make such prohibition.

XIII. Payments hereunder required to be made direct to the contractor shall be made by the owner by check addressed to the contractor by mail at Mobile, Ala.

In witness whereof the parties have caused these presents to be executed by their proper corporate officers and their corporate seals to be hereto affixed and attached on the day above stated.

ALABAMA DRY DOCK & SHIPBUILDING CO.,
[SEAL.] By DAVID R. DUNLAP, *President.*
Attest:

———— ————,
Secretary.

Countersigned:

———— ————,
Director.

UNITED STATES SHIPPING BOARD
EMERGENCY FLEET CORPORATION,
[SEAL.] By WILLIAM DENMAN, *President.*
Attest:

GEO. H. SAVAGE,
Secretary.

SUMMARY OF PROVISIONS—UNION BRIDGE & CONSTRUCTION CO. (MISSOURI CORPORATION), MORGAN CITY, LA.

[Specimen of actual cost plus sliding-scale fee contracts. Contract 28, W. H., June 16, 1917. This type of contract was an early type, no contract of this kind except two having been executed since the middle of July, and as to those two the commitments had been made prior thereto. This form has been used for wood hulls only. Emergency Fleet Corporation is referred to as "owner."]

Work to be done.—Six wood hulls. Owner's standard drawings and specifications (p. 1, Art. I).

Deliveries.—Afloat contractor's works, Morgan City, La. One hull each following dates: February 15, March 30, May 10, June 20, July 30, September 10, 1918. (P. 1, Art. I.)

Purchase price.—Owner to pay actual cost plus a sliding-scale fee, which is increased or diminished as stated:

Cost.—Cost is defined in the contract following so far as applicable, the definition of cost in the munitions manufacturers' tax law (p. 3, subdiv. 5). The contract contains an estimated base cost which may vary according to (*a*) alterations directed by owner; (*b*) protection on labor and materials (see this heading below). The cost of the hull includes the amount which the owner authorized to be expended for plant construction or extension, this cost of plant, establishment, or extension being thus charged to and spread over all of the hulls (p. 4, subsec. (*g*)).

Fee.—The contractor receives a normal fee of $20,000 if the estimated cost equals the actual cost (p. 2, subdiv. 3).

(*a*) If the actual cost is less than the estimated cost, the fee is increased by one-half of the saving (p. 1, bottom).

(*b*) If the actual cost exceeds the estimated cost, the fee is decreased by the excess up to the amount of the normal fee (in other words, until the fee is wiped out) (p. 2, subsec. (*b*)).

(*c*) The owner bears any excess of the actual cost over the estimated cost plus contractor's normal fee (p. 2, subsec. (*b*)).

Premium and liquidated damages.—No provision.

Protection on labor and materials.—The base price of $280,000 is to be increased by any advance in the average actual cost of (*a*) lumber used in the construction of hulls over $35 per thousand f. o. b. mills (p. 2, subdiv. 4); (*b*) metal fastenings over 8 cents per pound base f. o. b. Morgan City, La. (ib.); (*c*) materials over the cost specified in schedule attached to the contract; (d) labor over the established schedule of wages prevailing in the vicinity of contractor on the date of the contract (pp. 2, 3); (*e*) owner bears the cost of any increases due to instructions of owner as to wages and conditions of labor (p. 11, Art. XI).

Plant.—The cost of the construction of plant or of extensions to plant authorized to owner is included in and spread over the cost of the hulls and is borne by the owner (p. 4, subsec. (*g*)). The plant so constructed or extensions so made, in the event that the actual cost exceeds the average sum of $300,000 for each hull, belongs to and continues to be the property of the owner, but may be purchased by the contractor at the termination of the contract at an agreed valuation (p. 4, subdiv. 6).

Outside of the contract the owner has imposed a reasonable limit upon the amount to be expended for plant and extensions thereto. Items of overhead expense, indirect expense, and plant cost must be submitted to the owner in advance (p. 3, subdiv. 5, second paragraph).

Payments—(*a*) *Of cost.*—Monthly within 15 days after submission of bills and pay rolls certified to by owner's auditor, covering approved cost for the previous month (p. 6, subdivs. 11, 12).

Subcontracts and orders—(*b*) *Of fee.*—Thirty days after acceptance of each hull (p. 2, subdiv. 3). Owner has full control over orders and commitments for material and equipment and supplies. All such orders are placed by contractor as agent in the name of the owner. Contractor has no pecuniary liability thereunder where written approval of owner obtained (p. 6, subdiv. 13).

Other general provisions.—Provision for determination of cost (p. 4, bottom). Inspectors, auditors, and accounts (p. 5, subdivs. 8, 9, 10; p. 6, subdiv. 14). Alterations (p. 7, Art. III). Delays beyond contractar's control (ib.). Insurance (p. 7, subdiv. 4). Forfeiture (p. 6, Art. V). Title to work and materials (p. 9, Art. VI). Disputes (p. 9, Art. VII). Time of essence (p. 10, Art. VIII). Liens (p. 10, Art. IX). Claims and patents (p. 10, Art. X). Prohibition against assignment (p. 11, Art. XII).

Contract made this 16th day of June, 1917, between Union Bridge & Construction Co., a corporation organized under the laws of the State of Missouri, party of the first part (herein called the contractor), and the United States Shipping Board Emergency Fleet Corporation, a corporation organized under the laws of the District of Columbia, party of the second part (herein called the owner).

For valuable considerations, the receipt of which is hereby acknowledged by both parties, and in consideration of the mutual promises of the parties, it is agreed as follows:

1. *Work to be done.*—1. The contractor hereby agrees to construct, in accordance with the original standard drawings and specifications of the owner, hereto attached and hereby made a part of this contract, under the rules and regulations of the American Bureau of Shipping, six wood hulls suitable for cargo-carrying steamers.

Deliveries.—2. The contractor agrees to deliver said hulls to the owner afloat at the works of the contractor at Morgan City, La., as follows:

The first hull to be delivered on or before February 15, 1918, and the remaining number of hulls to be delivered as follows:

Second hull on or before March 30, 1918.

Third hull on or before May 10, 1918.

Fourth hull on or before June 20, 1918.

Fifth hull on or before July 30, 1918.

Sixth hull on or before September 10, 1918.

II. *Payment for hulls.*—1. The actual cost of each hull, as hereinafter defined, shall be paid by the parties as follows:

(*a*) The owner agrees to pay the first $280,000 of such actual cost or, upon the happening of either, any or all of the events specified in section 4 of this article, such additional sum as shall be determined pursuant to section 4 of this article. In the event such actual cost shall be less than $280,000, the owner shall pay to the contractor one-half of the difference between such actual cost and $280,000.

(*b*) In the event such actual cost shall exceed $280,000 or exceed such additional sum as shall be determined pursuant to section 4 of this article, the contractor shall pay such excess, except as specifically limited by section 2 of this article.

(*c*) Any excess of such actual cost over the amount required to be paid by the contractor, under subdivision (*b*) of this section 1, shall be paid by the owner.

Contractor's liability for cost.—2. It is agreed, however, that the total sum required to be paid by the contractor under subdivision (*b*) of section 1 of this article, shall in no event exceed the sum of $20,000 for each hull which the owner shall be required to accept delivery of under this contract. In the event the contractor shall wholly or partly default in the payments to be made by the contractor, under subdivision (*b*) of section 1 of this article, the owner may retain from the payment required to be made under section 3 of this article, as an offset against such default, an amount equal to the amount so in default, or if the amount so in default shall be equal to or in excess of the amount payable under said section 3 the owner may retain the whole of the latter amount.

Compensation—3. The owner shall pay to the contractor within thirty (30) days after the completion and delivery and acceptance of each hull a sum of $20,000 in full payment for the contractor's work and services hereunder.

Cost of material.—4. In the event there shall be any advance in the average actual cost of the lumber used in the construction of said hulls over the sum of $35 per thousand, f. o. b. mills, or in the event there shall be any advance in the average actual cost of the metal fastenings, shown on the blue print annexed hereto, marked Schedule A, and made a part of the specifications, used in construction of said hulls over the sum of 8 cents per pound base f. o. b. Morgan City, La., or in the event there shall be any advance in the average actual cost of labor employed in the construction of said hulls over the established schedule of wages prevailing in the vicinity of the contractor's yards on the date of this contract for similar services, or in the event there shall be any advance in the average actual cost of the materials specified in Schedule B annexed hereto over the prices set forth opposite said materials in said schedule, then in either, any, or all of said events, such advance plus the sum of $280,000 shall be the additional sum referred to in section 1 of this article.

Actual cost.—5. For the purposes of this contract the actual cost shall be generally as defined in the United States revenue bill of September 8, 1916, section 302, in so far as the requirements of said revenue bill are applicable to and not inconsistent herewith.

The actual cost shall include the following and items similar thereto in principle, provided that all items of overhead or indirect cost included in subdivisions (*b*) to (*e*) of this section 5, and all items under subdivisions (*f*) and (*g*) of this section 5 shall, as far as possible, be submitted to the owner in advance for its approval, and no item so submitted in advance and disapproved by the owner shall be payable to the contractor.

(*a*) The cost of labor and materials, machinery, equipment, and supplies entering into the building or construction of the hulls and other direct charges (such as insurance on the hulls).

(*b*) A proper proportion of running expenses, including ordinary rentals, cost of repairs and maintenance, light, heat, power, insurance (including lia-

bility and compensation insurance), management, salaries, and other indirect charges.

(*c*) A proper proportion of interest accrued and paid on debts or loans, contracted to meet the needs of the business and the proceeds of which have been actually used to meet such needs.

(*d*) A proper proportion of taxes of all kinds accrued and paid with respect to the business or property.

(*e*) A proper proportion of losses actually sustained in connection with the business, including losses from fire, flood, storm, riot, vandalism, any act of God, acts of war, or other casualties, and not compensated for by insurance or otherwise.

(*f*) A reasonable allowance, according to the conditions, for depreciation of values of plant and property (account being taken of exceptional depreciation of extensions, increases, and additions to plant and property specially acquired for or devoted to the manufacture or erection of the work or the construction of the hulls under this contract provided the same have not been paid for by the owner under subdivision (*g*) of this section 5.

(*g*) The cost of labor, materials, machinery, equipment, and supplies (other than real estate) for the establishment of and extensions, increases, and additions to plant and property of the contractor authorized by the owner specially acquired for or devoted to the building or construction of the hulls under this contract and rentals actually paid for such establishments, extensions, increases, and additions authorized by the owner.

Title to plant.—6. Physical property and unexpired leases represented by items of cost included in subdivision (*g*) of section 5 of this article paid for by the owner shall, in the event the actual cost, as hereinbefore defined, shall exceed the average sum of $300,000 for each hull, belong to and continue to be the owner's property after termination of this contract, but may be purchased by the contractor at such termination at a valuation to be agreed upon.

Determination of cost.—The determination of the actual cost as above defined shall be made by and under the direction of George W. Goethals as general manager of the owner or his successors in such office (herein called "the general manager"), and his decision shall (except as hereinafter stated) be binding upon both parties. Wherever possible, he will lay in advance the methods to be followed in ascertaining and determining the actual cost, and where this can not be done will act on claims submitted by the contractor. He will determine methods to be followed by the contractor in preparing bills and by engineers and auditors in certifying to them, and will determine the items which must be referred for his decision. He will, so far as possible, determine in advance the ratio of amortization referred to in subdivision (*f*) of section 5 of this article and allowances to be made for indirect charges.

Naval architect.—8. The owner will employ one or more inspectors of recognized ability in their profession to supervise and assist in the construction of these hulls. They and their assistants, described herein as the owner's inspectors, will represent the owner and will be required to watch closely the construction. Such one of them as shall from time to time be so designated by the owner will act as the representative of the owner and to him shall be referred all questions arising under the contract at the works. His decision on all questions when rendered under his general authority or after approval by the owner shall be binding, subject in all cases to appeal to the general manager of the owner.

Auditors.—9. The owner may send an auditor to the works of the contractor to supervise and assist in the accounting.

10. The accounts and records of the contractor shall at all reasonable times be open to inspection by the owner. All statements and accounts relating to expenditures and cost hereunder shall be made by the contractor in such form as may be required by the general manager. No change shall be required in the present methods and principles of keeping costs by the contractor provided the general manager deems them adequate for the determination of actual costs. All information obtained from the contractor's accounts and records shall be treated as confidential.

Payments.—11. Payments shall be made to the contractor by the owner monthly within 15 days after the submission of bills and pay rolls to cover the approved actual cost for the previous month, as defined in section 5 of this article, but in the event the contractor shall be in default, under subdivision (*b*) of section 1 of this article, the methods of making payments shall be submitted to and decided by the general manager and his decision shall be final.

12. No payment shall be made except when bills are certified by one of the owner's inspectors or an auditor. Final approval of all bills by such inspectors or auditors shall be necessary for payment.

Orders.—13. The owner shall have full control of all orders for materials, machinery, equipment, supplies, and other purchases and commitments made under this agreement (including establishment of and extensions, increases, and additions to plants and property), and all contracts and orders placed by the contractor shall be in the name of the owner by the contractor as agent, and it is understood that the contractor shall assume no pecuniary liability under or by reason of such obligations where made with the written approval of the owner.

Inspectors' certificates.—14. Every facility shall be afforded by the contractor to the inspectors appointed by the owner, and in the event the contractor shall order any material without the owner's approval, it shall be the duty of such inspectors either personally or by deputies to inspect such materials and to accept such materials as are in conformity with specifications and promptly to reject all materials which do not comply with specifications; such condemnation, if any, of such materials, to be made by such inspectors before the same are worked or put into the construction, if opportunity so to do is afforded by the contractor. Said inspectors shall also have the right of rejection after such materials are worked or put into construction, if facilities are not given for inspection prior thereto.

III. *Alterations.*—The owner shall have the right, but only by orders in writing, to make such reasonable alterations, omissions, additions, or substitutions not materially affecting the general design of the hull as the owner may deem necessary. The contractor agrees to accede to and carry the same into effect as though such alterations, omissions, additions, or substitutions were originally provided for in this contract. In the case the parties are unable to agree as to the effect of such alterations, omissions, additions, and substitutions, the dispute shall be determined as provided by Article VII hereof. If the contractor be delayed or obstructed in the transaction or completion of the work provided for by this contract by the delay, neglect, or default of the owner, or by reason of alterations or additions by the owner, or the commandeering by the United States Government of materials on the ground or materials purchased by the contractor but not delivered, or by reason of strikes, fire, lightning, earthquake, flood, riot, insurrection, or war, or by reason of suspension of deliveries of material or machinery for any of the causes above stated, or by reason of instructions given by the owner under Article XI hereof, or any cause beyond the contractor's control, beyond the time herein fixed, the time of delivery shall be extended for a period equivalent to the time lost by reason thereof. In the event that parties shall not agree as to such extension, such extension shall be determined in accordance with Article VII hereof.

IV. *Insurance.*—The contractor will, during the progress of the work on said hulls and until delivery of them, place and maintain insurance on each of them in proper amount by companies approved by the owner to cover work done and materials on hand or appropriate to the use of the hulls in and about the premises of the contractor. Such insurance shall provide against fire and marine risks, lightning, settling of stagging, breakage of ways, and risks of launching, and shall be for an amount to be fixed by the owner, not less than the sum of the payments made under this contract from time to time, provided that the amount of insurance required shall not at any time exceed the amount available in the insurance market. The policies shall provide that the loss, if any, shall be paid to the owner for the use of the owner and the contractor as interest may appear.

V. *Forfeiture.*—In case of failure or omission of the contractor at any stage of the work prior to completion from any cause or causes to go forward with the work, and make progress toward its completion satisfactory to the owner, the owner may declare this contract forfeited. In that event the owner may immediately enter the works and premises of the contractor and take possession of the hulls and materials and equipment. The owner shall thereupon cause to be taken and filed with the United States Shipping Board a full and complete statement and inventory of all work done or begun on or about the hulls and of all materials on hand applicable thereto. On filing of such statement and inventory with the United States Shipping Board, the owner may proceed with the completion of the hulls in accordance with this contract either at the works of the contractor with its equipment, yard, and facilities, or elsewhere, by contract or otherwise, and in its discretion use for this purpose all suitable materials on hand and included in the inventory. In case the owner

shall thus cause this contract to be forfeited the amount to be paid hereunder shall be the actual cost (as defined in Article II hereof), unless theretofore paid, plus a reasonable rental for the appliances, yards, and facilities of the contractor, which, after said forfeiture, are used by the owner not to exceed the amount payable to the contractor under Article II hereof. Provided, however, that if the contractor can show to the satisfaction of the general manager of the owner reasonable industry and good faith in the prosecution of the work hereunder, and that the delays have been caused by circumstances over which he had no control, the contractor shall be allowed such opportunity as the general manager of the owner may deem reasonable to complete the work within the time prescribed by this contract.

VI. *Title.*—It is agreed that as the payments, provided for herein, are made by the owner on account of materials in the hulls ordered by or assembled or set up in the yard of the contractor or used in the construction of the hulls hereunder, exclusive of the construction of the plant and ways, the same to the extent of the payments shall become the property of the owner. Nothing contained herein, however, shall be construed as a waiver by the owner of its right to object if the terms of this contract have not been complied with, nor construed as acceptance of any work which fails to fulfill the requirements of this contract.

VII. *Disputes.*—In case the parties fail to agree as to any matter connected with this contract, or any doubt or dispute arises as to the meaning or effect of this contract or of the drawings and specifications which are a part hereof, or as to the manner of doing the work provided hereunder, or as to materials used or the time to be allowed or the amounts to be paid or allowed for alterations, omissions, additions, or substitutions, or as to any other particular, the matter shall be promptly referred to and determined by George W. Goethals, the general manager of the owner, or his successor at the time in office, and his decision shall be final and binding upon the parties.

In case after delivery of a completed hull to the owner under this contract (but only in that event) the contractor shall deem that it is aggrieved by any decision of the general manager as to any disputed matter hereunder of any kind, and shall give notice to the owner to that effect within 30 days after delivery or after final payment by the owner, such matter shall be determined by a board which shall consist of three naval architects or engineers or experts to be appointed, one by the owner, one by the contractor, and one by the American Bureau of Shipping. Such board shall within 30 days after submission of such matter to it determine what if any further sum shall be due by the owner to the contractor hereunder on account of such delivered hull and its finding (made by a majority of the board) shall be conclusive on both parties.

VIII. *Time of essence.*—It is agreed by both parties that time is of the essense of this contract. The contractor agrees to commence and carry through to completion the work under this contract with dispatch, and that it will not enter into any other contract or undertake any other work or service at its yards which will interfere in any material manner with the completion of the work undertaken hereunder.

IX. *Liens.*—The contractor shall keep the hulls in course of construction free and clear from all claims, liens, or any encumbrances of any kind or description, and shall before delivery, show to the satisfaction of the owner that the hulls are free and clear from every claim, lien, and encumbrance, except claim or lien of the contractor.

X. *Claims and patents.*—The contractor shall be responsible for all claims, if any, made against the owner for any infringements of patents, or patent rights and for the use of any patented articles and shall defend and save harmless and indemnify the owner against all such claims, and from all costs, expenses, and damages which it may be obliged to pay by reason of such infringement of patent or patent rights, or of the use of any patented articles, provided, that the owner will, in all instances, notify the contractor of any claims made against it by reason of any such infringement or use of patented articles, at the time when such claims is made, and will promptly notify the contractor of any suit or suits brought against it therefor and give the contractor an opportunity to defend the same, and provided that no payment shall be made by the owner unless with the consent of the contractor or pursuant to a decree by a proper court in such litigation, and provided that the contractor shall not be liable in the event the owner specifically orders the use of the

patent or patented article, whether or not the existence of the patent be known to the parties hereto.

XI. *Labor.*—The contractor will comply with all instructions as to wages or conditions of employment of labor on this contract given to it in writing by the owner. If by reason of any such instruction, the cost of any hull hereunder shall be increased, then the sums to be paid by the owner to the contractor as herein provided for such hull shall be increased by such amount. Such amount shall be agreed upon by the parties, and, if not agreed upon, shall be determined as provided in Article VII hereof.

XII. *Not assignable.*—This contract shall not, nor shall any interest herein, be transferred by the contractor to any person or persons save with the consent of the owner in writing.

XIII. Payments hereunder required to be made direct to the contractor shall be made by the owner by check addressed to the contractor by mail at 903 Sharp Building, Kansas City, Mo.

In witness whereof the parties have caused these presents to be executed by their proper corporate officer and their corporate seals to be hereto affixed and attached on the day above stated.

UNION BRIDGE AND CONSTRUCTION CO.,
[SEAL.] By L. S. STEWART, *President.*

Attest:
H. C. BECK, *Secretary.*
Countersigned:
C. A. NEAL, *Director.*

UNITED STATES SHIPPING BOARD
EMERGENCY FLEET CORPORATION,
[SEAL.] By WILLIAM DENMAN, *President.*

Attest:
GEO. H. SAVAGE, *Secretary.*

SCHEDULE B.

This schedule is subject to approval of owner's representative, R. E. Wood.

The Union Bridge & Construction Co., the contractor named in the annexed contract, will furnish, from time to time, the owner with schedules of material for the construction of hulls which the owner agrees, as provided in section 4 of Article II of the annexed contract, to cause to be furnished as soon as practicable after the dates to be stated by the contractor.

The description of the material and the prices therefor, f. o. b. New Orleans, La., are as follows:

STEEL PIPE.

	Price per 100 feet.			Price per 100 feet.	
	Black.	Galvanized.		Black.	Galvanized.
¼-inch	$3.78	$5 40	2-inch	$20 72	$25 90
⅜-inch	3 78	5 40	3-inch	47 84	53 55
½-inch	5.02	6.29	4 inch	70.85	85.02
¾-inch	6 44	8.05	5 inch	93 20	115 40
1-inch	9 52	11 90	6-inch	124 90	149 80
1¼-inch	15.40	19.25	7-inch	161.80	195.20

NATURAL-WOOD KNEES.

		Price.
12 inches thick, 3 feet and up by 6 feet and up (Douglas fir)	each	$16.50
9 inches thick, 3 feet and up by 3 feet and up (Douglas fir)	do	11.75
8 inches thick, 2 to 6 inches and up by 3 feet and up (Douglas fir)	do	10.00
6 inches thick, 2 to 6 inches and up by 3 feet and up Hackmatack	do	6.75
4 inches thick, 2 feet and up by 2 feet and up, Hackmatack	do	3.40

TREENAILS (BLACK LOCUST OR WHITE OAK).

		Price.
1¾ inches diameter by 26 inches long	per M..	$78.00
1¾ inches diameter by 32 inches long	do....	115.00
1¾ inches diameter by 36 inches long	do....	125.00

DECK PLUGS.

Up to ¾ inch	per M..	$0.95
Up to 1 inch	do....	1.00
Up to 1⅛ inches	do....	1.30
Up to 1¼ inches	do....	1.40

MISCELLANEOUS.

Tarr & Wonson, copper paint, brown	per gallon..	$2.20
Marine Patrol, gray hull paint (for hulls and exterior all superstructure	do....	2.00
Inside gray hull paint	do....	2.00
"Gulf and Marine" outside white	do....	2.25
"Gulf and Marine" inside white	do....	2.25
"Gulf and Marine" grays, reds, yellows, browns	do....	2.25
"Gulf and Marine" greens and vermillions	do....	2.75
Moore's marine spar varnish	do....	3.00
Moore's light hard oil varnish	do....	2.40
Crockett's marine spar varnish	do....	4.75
Valentine's valspar varnish	do....	4.75
H. W. Johns's smokestack paints	do....	2.10
Strictly pure white lead in oil	per pound..	.13½
Strictly pure red lead in *oil*, dry	do....	.13½
Strictly pure red lead in oil	do....	.13½
Raw linseed	per gallon..	1.30
Turpentine	do....	.52
Carbolineum	do....	.45
Navy pitch	per barrel of 200 pounds..	4.50
Sheet lead	per pound..	.14½
Brass castings	do....	.36½
Forgings	do....	.10
Calking cotton	do....	.23
Oakum (Stratford)	per bale of 50 pounds..	9.00

[Summary of provisions, lump-sum contract. Contract 144 S. C. Dec. 4, 1917. This is the present form of lump-sum contract. There are slight modifications to meet different situations. Emergency Fleet Corporation is referred to as "owner."]

PENSACOLA SHIPBUILDING CO. (DELAWARE CORPORATION); OFFICE, CHICAGO, ILL.; PLANT, PENSACOLA, FLA.

Work to be done.—(*a*) Ten fabricated steel turbine-driven vessels, 9,000 tons dead-weight cargo, 11 knots speed at deep-load draft (p. 1, Art. I). (*b*) Construct, equip, and maintain suitable shipyard plant, to be substantially completed in 200 days (p. 1, Art. I, subdiv. 1).

Deliveries.—Afloat contractor's works. One vessel within 12 months from date of contract, one each month thereafter (p. 1, Art. I). Before acceptance, vessel to undergo a dock trial and (or) a sea trial (p. 4, subdiv. 7).

Purchase price.—Lump sum $1,458,000 per vessel (p. 2, Art. II, subdiv. 1). Subject to following variations: (*a*) Increase or decrease in cost owing to alterations directed by owner (p. 6, Art. III, subdiv. 1). (*b*) Any savings due to owner waiving the carrying of insurance (p. 7, top of page). (*c*) Increase due to owner's instructions as to the conditions of labor (p. 10, Art. XI). (*d*) Increases in wages approved by owner (p. 12, Art. XVIII). (*e*) Any saving made by the owner in buying engines, turbines, boilers, auxiliaries, and deck machinery under the prices submitted by the contractor (p. 5, subdiv. 9). (*f*) Any deductions made at the rate of $162 per ton to cover the difference between the actual dead-weight tonnage and the contracted dead-weight tonnage of 9,000 tons (p. 5, subdiv. 10). (*g*) Any increase or decrease due to the difference between the actual and estimated cost of steel furnished by the owner (p. 2, 2d par.; p. 3, subdiv. 2). (*h*) Premium for expedition; liquidated damages for delay.

Furnishing of materials.—(*a*) Owner agrees to furnish f. o. b. mill to the contractor certain steel material estimated to cost $210,000 per vessel (p. 2, 2d par.). In computing the final payment, the actual cost of the steel is taken into consideration (p. 3, subdiv. 2). (*b*) Contractor estimates the cost of engines, boilers, auxiliaries, and deck machinery at the price as stated in schedule C, but makes no commitments without the written approval of the owner. Owner has option to furnish such equipment and, if it can do so at a lower price, is entitled to saving (p. 5, subdiv. 9).

Payments.—After deducting $210,000 per vessel (estimated cost of hull), balance of lump-sum purchase price is paid as follows: (*a*) Ten per cent of contract price of all steamers 30 days after signing contract (p. 2, middle). This payment is deposited in trustee account, withdrawable only on checks countersigned by owner's representative. Money so deposited is to be used (except a part thereof not exceeding one-half, which may be used in the construction of plant) for labor and material entering into the construction and equipment of vessels, including a proper proportion of overhead expenses incurred in connection with construction (p. 3, subdiv. 4). (*b*) Subsequent payments are made as different stages in the progress of work are reached (pp. 2, 3). Such payments do not exceed the value of materials and labor and overhead in connection with construction of the particular vessel plus one-tenth of the amount paid out of the first payment for plant (p. 3, subdiv. 3; p. 4, subdiv. 6).

Final payment.—The final payment is made upon acceptance by the owner after trial (p. 3, subsec. 1).

Plant.—(*a*) Contractor may expend up to one-half of first payment (approximately $625,000) upon plant (p. 3, subdiv. 4). (*b*) To secure proper application of these funds they are placed in the trustee account (p. 3, subdiv. 4) and in addition contractor gives its bond for $625,000, secured by a first mortgage upon contractor's plant, to insure proper application of funds (p. 4, subdiv. 5).

Premium and liquidated damages.—Three hundred dollars a day, according as delivery is advanced or retarded, not to exceed $25,000 per vessel (p. 8, Art. VIII, 2d par.).

Forfeiture.—If the progress of the work is unsatisfactory, owner may declare contract forfeited, take over plant and facilities of contractor, and complete the vessels with such plant and facilities or otherwise (p. 7, Art. V).

Cancellation.—If progress of the work is unsatisfactory, owner may cancel and contractor will complete only such vessels as directed (p. 11, Art. XVII). Contractor shall be reimbursed for losses sustained by cancellation, but in computing such losses shall be given consideration for profits only to the extent of the work constructed or under construction (ib.).

Insolvency.—If the contractor becomes insolvert, etc., owner may take possession of and complete the work (p. 11, Art. XIV).

Other general clauses.—The contract contains clauses for inspection (p. 4, subdiv. 8); access by inspectors and auditors (p. 5, subdiv. 11); alterations (p. 6, subdiv. 1); delays beyond control of contractor (p. 6, subdiv. 2); insurance (p. 6, Art. IV); title to work in vessels (p. 7, Art. VI); settlement of disputes (p. 7, Art. VII): time of essence—work under contract to be given precedence (p. 8, Art. VIII); provisions covering liens and taxes (p. 8, Art. IX); claims and patents (p. 9, Art. X); prohibition against assignment (p. 10, Art. XII); subcontracts made assignable to owner (ib.); Members of Congress not to benefit (p. 10, Art. XIII); laborers and material men's bonds to be furnished (p. 11, Art. XV); contractor to obtain necessary permits (p. 11, Art. XVI); personnel of contractor to be satisfactory to owner (p. 12, Art. XIX).

[Contract No. 144 S. C. Hull Nos. 965–974, inclusive.]

CONTRACT (LUMP-SUM BASIS) FOR COMPLETE VESSEL—STEEL FURNISHED.

Contract made this 4th day of December, 1917, between Pensacola Shipbuilding Co., a corporation organized under the laws of the State of Delaware, party of the first part (herein called the contractor), and the United States Shipping Board Emergency Fleet Corporation, a corporation organized under the laws of the District of Columbia (herein called the owner), representing the United States of America, party of the second part.

For a valuable consideration, the receipt of which is hereby acknowledged by both parties, and in consideration of the mutual promises of the parties, it is agreed as follows:

I. *Shipyard.*—1. The contractor agrees to construct, equip, and maintain, upon a suitable site, a shipbuilding plant, including office buildings, shops, building slips, plant equipment, and appurtenances, including arrangements for adequate fire protection and adequate housing facilities for contractor's employees adequate to assure the construction, completion, and delivery of the vessels under the terms and at the times herein provided, said plant to be substantially completed in 200 days.

Work.—2. The contractor hereby agrees to construct at its own expense, in accordance with the contractor's drawings and specifications (all drawings and specifications before binding on the owner must bear the acceptance of and approval by the owner or its duly authorized representative), hereto attached and made a part of this contract, under the rules and regulations of the American Bureau of Shipping, and/or Lloyds, 10 fabricated steel, turbine-driven vessels of 9,000 tons dead-weight carrying capacity each and 11 knots speed at deep-load draft.

The contractor agrees to deliver said vessels complete with propelling machinery, auxiliaries, and equipment, with full military requirements, according to said drawings and specifications, to the owner afloat at the works of the contractor at Pensacola, Fla., as follows:

One vessel within 12 months from the date of this contract.
One vessel within 13 months from the date of this contract.
One vessel within 14 months from the date of this contract.
One vessel within 15 months from the date of this contract.
One vessel within 16 months from the date of this contract.
One vessel within 17 months from the date of this contract.
One vessel within 18 months from the date of this contract.
One vessel within 19 months from the date of this contract.
One vessel within 20 months from the date of this contract.
One vessel within 21 months from the date of this contract.

II. *Payment.*—1. In consideration of the performance of this agreement by the contractor the owner agrees to pay therefor a lump-sum purchase price of $1,458,000 for each of such completed vessels. Such purchase price shall be paid in the following manner:

Steel furnished.—The owner agrees to cause to be furnished f. o. b. the mill to the contractor certain steel material, which shall be ordered by the contractor, at the price (freight to contractor's yard to be paid by the contractor), and in amounts and at the times substantially as shown in schedule B, hereto attached, which is made a part hereof. Such steel shall be ordered by the contractor for the owner's account, and payment therefor at the price shown in schedule B shall be made by the owner direct to the concern furnishing such steel. All payments so made shall be deemed payments on account of the purchase price above stated. For the purpose of computing the amounts to be paid by the owner direct to the contractor the cost of such steel is figured approximately at $210,000 for each vessel. The balance of the purchase price is to be paid direct to the contractor as follows:

(*a*) Ten per cent of the contract price of all said steamers 30 days after signing this contract.

(*b*) Ten per cent of the contract price of each vessel when the keel thereof is laid, or its equivalent in work done.

(*c*) Five per cent of the contract price of each vessel when 50 per cent of the floors are in place, or its equivalent in work done.

(*d*) Five per cent of the contract price of each vessel when 50 per cent of the tank top is in place, or its equivalent in work done.

(*e*) Five per cent of the contract price of each vessel when one-half the frames thereof are in place, or its equivalent in work done.

(*f*) Five per cent of the contract price of each vessel when all the frames thereof are in place and stem and stern posts are up, or its equivalent in work done.

(*g*) Ten per cent of the contract price of each vessel when one-half of the plating is bolted in place, or its equivalent in work done.

(*h*) Ten per cent of the contract price of each vessel when bulkheads and decks are in place, or its equivalent in work done.

(*i*) Ten per cent of the contract price of each vessel when said vessel is fully plated and the decks and the outside of the vessels are entirely calked, or its equivalent in work done.

(*j*) Ten per cent of the contract price of each vessel when said vessel is successfully launched, or its equivalent in work done.

(*k*) Ten per cent of the contract price of each vessel when steel houses are completed and machinery, boilers, auxiliaries, and equipment are installed, or its equivalent in work done.

(*l*) The balance of the contract price of each vessel after completion and steam trial and on delivery to and acceptance by the owner of such completed vessel.

2. In computing the percentage thus to be paid of the purchase price of each vessel under subdivisions (*a*) to (*k*) inclusive, the purchase price shall be deemed to be the aforesaid lump-sum purchase price minus the aforesaid estimated cost of steel to be supplied by the owner as above stated. In computing the balance due under subdivision (*l*) the actual and not the estimated cost of steel shall be used.

3. Work done as used in the preceding paragraphs shall mean and represent the actual value of material delivered at the works of the contractor, inspected and passed by the owner, or the duly authorized representative of the owner, and the actual value of all labor expended on the vessel or vessels, together with a proper proportion of the operating and overhead expense incurred only on account of the vessels herein contracted for, and cash payments, if any, for hull material fabricated at the works of a subcontractor, and/or for propelling machinery, boilers, and auxiliaries, and the amount spent upon contractor's ways, shipbuilding plant, and yard equipment—all as approved by the duly authorized representatives of the owner. In estimating progress payments (*b*) to (*k*) both inclusive, due the contractor upon each vessel, only 10 per cent of the total amount spent upon contractor's ways, shipbuilding plant, and yard equipment (as provided for in par. 4 of this article) shall be allowed against each vessel.

4. The payment described in subdivision "*a*" of section 1 of Article II hereof shall be deposited in the name of the owner, with a depositary or depositaries designated by the contractor and approved by the owner. The money so deposited shall be withdrawn and used only in payment for material delivered at the works of the contractor, inspected and passed by the owner or the duly authorized representative of the owner, and for labor expended on the vessel or vessels and for a proper proportion of the operating and overhead expenses incurred only on account of the vessels herein contracted for, and the cash payments, if any, for hull material fabricated at the works of a subcontractor, and/or for propelling machinery, boilers, and auxiliaries—all as approved by the duly authorized representative of the owner, except that a part thereof not exceeding one-half of said payment may be used for the contractor's ways, shipbuilding plant, and yard equipment. Such withdrawals shall be made only upon checks or drafts drawn by the contractor and countersigned by the duly authorized representative of the owner. Such checks or drafts will be countersigned only upon receipt of and in accordance with vouchers for material and/or labor and/or operating and overhead expenses, and/or cash payments as provided for in the preceding paragraph which have been signed by the contractor and approved in form and substance by the duly authorized representative of the owner. The title to such deposit and interest thereon shall be and remain in the owner until withdrawn as aforesaid.

In the event of any default of the contractor hereunder, the owner upon its notice to the depositary or depositaries of such default shall have the right to withdraw upon its sole order the said deposit or any part thereof.

Bonds to be furnished by the contractor.—5. Before any part of the payment provided for in subdivision (*a*) of section 1, Article II, can be spent on contractor's ways, shipbuilding plant, and yard equipment, the contractor agrees to furnish the owner its bond in the sum of $625,000, secured by a first mortgage upon the contractor's real estate located at Pensacola, Fla., and the improvements now and hereafter located thereon, including all tools and engineering equipment. The contractor further agrees to furnish the owner a policy of title insurance in an amount equal to the purchase price of the contractor's real estate at Pensacola, Fla., in a title company or companies satisfactory to the owner. The bond aforesaid shall secure to the owner the proper application of the sum of $625,000 upon the contractor's ways, shipbuilding plant, and yard equipment, and the construction of contractor's shipbuilding plant as provided by paragraph 1 of Article I. The cost of the policy of title insurance and all costs and expenses in connection with the preparation, execution, and recordation of the bond and mortgage shall be paid for by the contractor.

Payments represented by progress.—6. It is agreed that as to all the installment payments provided for in section 1 of this article, after the first payment

described in subdivision "a" of section 1, no payment made shall with the payments theretofore made exceed the value of the materials and labor already expended up to that time, together with the proper proportion of the operating and overhead expenses and cash paid out, and the amount spent upon contractor's ways, shipbuilding plant, and yard equipment, all as provided in sections 3 and 4 of this article, and all of which is certified to by the owner's inspector and is accepted as satisfactory by the owner.

Trial.—7. Before final acceptance of each vessel by the owner the contractor shall make, at contractor's expense, a dock trial of not exceeding six hours, and/or a sea trial at some point convenient to the contractor's yard of not exceeding four hours at maximum specified speed and deep-load draft, which shall be to the satisfaction of the owner. If the vessel is tried at deep-load draft the owner will provide cargo. If so desired, the owner can require all or any of the vessels to be tried at a lesser draft and increased speed corresponding thereto as determined by the owner.

Inspector's certificate.—8. No inspector's certificate given or payment made under the terms of this contract (except the final payment) shall be conclusive evidence of the performance of this contract, either in whole or in part, and no payment shall be construed to be an acceptance of defective work or improper materials. Every facility shall be afforded by the contractor to the inspectors appointed by the owner. It shall be the right and duty of such inspectors, either personally or by deputies, to inspect all materials and workmanship entering into the construction, and to accept such materials and/or workmanship as are in conformity with specifications, and promptly to reject all materials and/or workmanship which do not comply with the specifications; such condemnation, if any, of materials to be made by such inspectors whenever defects are discovered prior to the final acceptance of the vessel by the owner. Notice of rejection shall be in writing, signed by a designated representative of the owner.

Covenants regarding equipment and material.—9. The contractor, in estimating the above lump-sum purchase price, has estimated the main engines, boilers, auxiliaries, and deck machinery required for the construction of the vessels at the current market price stated in schedule C. The contractor agrees not to make any commitments with respect to any of the aforesaid main engines, or turbines, boilers, auxiliaries, and deck machinery, without the written approval of the owner, and that in the event the owner shall be able to purchase the same for any sum less than the prices stated in schedule C the owner shall be entitled to such saving; and further agrees that the owner may purchase and deliver the same to the contractor and withhold the price thereof stated in schedule C from the payments (which in the ordinary course of events would be due upon the use of such items) required to be made by the owner to the contractor under section 2 of this article.

10. The owner shall make a deduction at the rate of $162 per ton (or any part thereof) to cover the difference between the actual dead-weight tonnage and the contracted dead-weight tonnage of 9,000 tons, provided that no deduction shall be made for deficiency due to changes or alterations in the vessels, or any of them, made pursuant to the owners' instructions.

The actual tonnage of each vessel shall be determined by her ability to carry a dead-weight of 9,000 tons, including cargo, fuel, stores, water, crew, and effects on a draft with summer freeboard, as determined by the British board of trade rules, as shown by a displacement and dead-weight scale to be furnished by the contractor, checked and approved by the owner. The amount of deductions for such tonnage deficiency, when determined, shall be deducted from the balance of the contract price due the contractor under subdivision (1). The vessel contracted for includes full military extras, but the weight of said military extras and the net effect of changes ordered by the owner shall be allowed for as if it were dead-weight.

Inspectors and auditors.—11. The owner's inspectors, auditors, or other duly authorized representatives shall have full and free access to the works of the contractor and to all work and material and all accounts, records, and original entries, vouchers, and supporting papers of the contractor. In order that the owner may keep in touch with the progress and cost of the construction of the vessels, the contractor shall keep its books in such a way as to disclose readily and accurately all information necessary to determine costs, expenses, and charges in connection with the construction of the vessels hereunder.

III. *Alterations.*—1. The owner shall have the right, but only by orders in writing, to make such reasonable alterations, omissions, additions, or substi-

tutions not materially affecting the general design of the vessel as the owner may deem necessary. The contractor agrees to accede to and carry the same into effect upon proper compensation or allowance being agreed therefor, as though such alterations, omissions, additions, or substitutions were originally provided for in this contract. If by reason thereof the cost of the construction hereunder shall be increased, then the sum to be paid by the owner to the contractor, as herein provided, shall be increased to an amount which shall be agreed upon. If the construction shall be rendered less expensive by reason thereof, the sum to be paid shall be decreased by an amount which shall be agreed upon. In case the parties are unable to agree as to the effect of such alterations, omissions, additions, and substitutions, or the price thereof, the dispute shall be determined as provided by Article VII hereof.

Delay.—2. If the contractor be delayed or obstructed in the transaction or completion of the work provided for by this contract by the delay, neglect, or default of the owner, or by reason of alterations or additions by the owner, or the commandeering by the United States Government of materials on the ground or materials purchased by the contractor but not delivered, or by reason of strikes, fires, lightning, earthquake, flood, riot, insurrection, or war, or by reason of suspension of deliveries of material or machinery for any of the causes above stated, or by delay or failure of manufacturers to deliver material or machinery which the owner agrees to cause to be furnished to the contractor, pursuant to section 8 of Article II hereof, or by reason of instructions given by the owner under Article XI hereof, beyond the time herein fixed the time of delivery shall be extended for a period equivalent to the time lost by reason thereof: *Provided,* That on request for extension of the contract time shall be considered unless the contractor, within 10 days from the occurrence of an alleged cause of delay, shall notify the general manager of the owner, in writing, of the facts and circumstances in each case and of the extent to which the contractor claims that the completion of the vessel is thereby delayed: *And provided further,* That the owner may, without prejudice to the rights of the contractor, reserve his decision upon any and all claims for extension until the completion of the vessel, the work in the meantime not to be discontinued or delayed on account thereof. In the event that parties shall not agree as to such extension, such extension shall be determined in accordance with Article VII hereof.

IV. *Insurance.*—The contractor agrees to insure and keep insured at its own expense for the benefit of the owner in insurance companies satisfactory to the owner, or otherwise, said vessels and all materials and supplies for and to be used in construction under this contract against any and all damage by fire and marine risks, lightning, settling of staging, breakage of ways, and risks of launching during such construction and until final completion and delivery to and acceptance by the owner; such insurance to be in the usual form and to be payable to the owner and the contractor as their interests may appear, and for an amount not less than the amounts of the installments of payment, which, from time to time have been made: *Provided,* That the amount of insurance required shall not exceed at any time the amount available in the insurance market, and that before placing the same the owner has the option of waiving any insurance and reducing the contract price by an amount corresponding to the cost of said insurance.

V. *Forfeiture.*—The progress of the work must at all times be satisfactory to the owner. Upon any failure or omission of the contractor to make such satisfactory progress (unless caused by circumstances beyond its control) the owner may declare this contract forfeited. In that event the owner may immediately enter the shipyard and take possession of it and its facilities and of the vessels and materials and equipment. The owner shall thereupon cause to be taken and filed with the United States Shipping Board a full and complete statement and inventory of all work done or begun on or about the vessels and of all materials on hand applicable thereto, the owner may proceed with the completion of the vessels in accordance with this contract either at the shipyard with its equipment, and facilities, or elsewhere, by contract or otherwise, and in its discretion use for this purpose all suitable materials on hand and included in the inventory.

Provided, however, That if the contractor can show to the satisfaction of the general manager of the owner reasonable industry and good faith in the prosecution of the work hereunder, and that the delays have been caused by circumstances over which it had no control, the contractor shall be allowed such opportunity as the general manager of the owner may deem reasonable to complete the work.

VI. *Title.*—It is agreed that title to all vessels, either completed or under construction, in so far as they shall have been inspected and approved by the owner, shall be in the United States of America, and that the title for all material for the furtherance of work under this contract, however and by whomsoever contracted for or assembled or set up in the shipyard or used in the construction of the work under this contract, shall be in the owner at all times. Nothing contained herein, however, shall be construed as a waiver by the owner of its right to direct the replacement of unsatisfactory workmanship and/or materials.

VII. *Disputes.*—In case the parties fail to agree as to any matter connected with this contract, or any doubt or dispute arises as to the meaning or effect of this contract or of the drawings and specifications which are a part hereof, or as to the manner of doing the work provided for hereunder, or as to materials used or the time to be allowed or the amounts to be paid or allowed for alterations, omissions, additions, or substitutions, or as to any other particular, the matter shall be promptly referred to and determined by Washington L. Capps, the general manager of the owner, or his successor at the time in office, and his decision shall be final and binding upon the parties.

In case, after delivery of a completed vessel to the owner under this contract (but only in that event), the contractor shall deem that it is aggrieved by any decision of the general manager, as to any disputed matter hereunder of any kind, and shall give notice in writing to the owner to that effect within 60 days after delivery or after final payment by the owner, such matter shall be determined by a board which shall consist of three naval architects or engineers, or experts to be appointed, one by the owner, one by the contractor, and the third arbitrator shall be selected by the two arbitrators first chosen, and if they can not agree on such third arbitrator, then the latter shall be named by the classification society under which the vessels are being constructed. Such board shall within 30 days after submission of such matter to it, make its determination and its findings (made by a majority of the board) shall be conclusive and binding on both parties.

VIII. *Time of essence.*—It is agreed by both parties that time is of the essence of this contract. The contractor will commence and carry through to completion the work under this contract with all possible dispatch, will give precedence in its plant or plants to the work hereunder subject only to the prior rights, if any, of a department of the United States of America, and will not enter into any other contract or undertake any work or service at its works which will interfere in any material manner with the completion of the work undertaken hereunder.

Bonus and liquidated damages.—Should the contractor succeed in delivering any of said vessels to the owner complete before the dates above provided, the owner agrees to pay, as premium for advanced delivery for each completed vessel so delivered, the sum of $300 per day for each and every day gained by such advanced delivery. Should the contractor fail to deliver any of said vessels on the dates herein fixed, the contractor agrees to pay the owner, as liquidated damages, on each such vessel $300 for each and every day of delay in delivery of such vessel; but it is hereby agreed that the total premium or liquidated damages so to be paid shall in no case exceed the sum of $25,000 for any such vessel. Premiums or liquidated damages shall be added to or subtracted from the final payment hereunder.

IX. *Liens and taxes.*—The contractor agrees to deliver the vessels to the owner free and clear of any lien or encumbrance. The contractor further agrees upon the delivery of each vessel to deliver to the owner all papers and documents necessary and/or convenient to confer upon the owner a full and unencumbered title to such vessels, including classification certificates as herein provided, together with a full release by the contractor to the owner waiving all further claims or demands of any nature, except any claim or demand in regard and to the extent to which the provisions of article VII have been and/or are invoked. When payment is to be made hereunder the owner may require evidence satisfactory to it to be furnished showing what obligations for labor and materials, supplies, or equipment used or to be used in the construction of the vessels hereunder are unpaid, and the owner may at its option, out of any amount not paid to the contractor hereunder, withhold such amount as may be necessary to satisfy such obligations, or with the consent of the contractor satisfy the same. In the event of the filing or attaching of any lien or encumbrance (whether valid or invalid) against the vessel before the final payment the owner may at its option, out of any amounts not paid to the contractor hereunder, withhold such amount as may be necessary to satisfy such lien or encumbrance, or may satisfy

or remove the same. The owner will not exercise its option to satisfy or remove any lien or encumbrance if the contractor desires to contest it, provided that the contractor will immediately take such steps as in the judgment of the owner will prevent such lien or encumbrance from delaying the construction or delivery of the vessels hereunder, and will indemnify and save the owner harmless from any costs, charges, or damages incurred by reason of the contesting of such lien. It is hereby further stipulated and agreed by the contractor for itself and on its own account and for and on account of all persons, firms, associations, and corporations furnishing labor and materials for said vessels that this contract is upon the express condition that no lien or rights in rem of any kind shall lie or attach upon or against any of said vessels or their machinery, fittings, or equipment, or the materials therefor or any part thereof, or of either for or on account of any work done upon or about said vessels, machinery, fittings, equipment, or materials, or of any materials furnished therefor or in connection therewith, nor for or on account of any other cause or thing or of any claim or demand of any kind, except the claims of the owner.

The contractor agrees to pay all taxes, if any, which may be assessed or assessable against the materials on hand and the vessels under construction up to the time said vessels shall be accepted by the owner. The contractor further agrees to pay all income taxes, excess-profit taxes, and all other municipal, State, or Federal taxes which may be assessed or assessable on account of this contract.

X. *Claims and patents.*—The contractor agrees to protect the owner from all claims arising from accidents or casualties to employees, workmen, or other persons in, on, or about the work covered by this contract, and to indemnify the owner against the same.

The contractor shall be responsible for all claims, if any, made against the owner for all infringements of patents or patent rights and for the use of all patented articles, and shall defend and save harmless and indemnify the owner against all such claims, and from all costs, expenses, and damages which it may be obliged to pay by reason of any such infringment of patents or patent rights, or of the use of patented articles, provided that the owner will, in all instances, notify the contractor of any claims made against it by reason of any such infringement or use of patented articles at the time when such claim is made, and will promptly notify the contractor of any suit or suits brought against it therefor and give the contractor an opportunity to defend the same, and provided that no payment shall be made by the owner unless with the consent of the contractor or pursuant to a decree by a proper court in such litigation. Where the owned specifically orders the use of the patent or patented article, whether or not the existence of the patent is known to the parties hereto, the owner will hold the contractor harmless from any expense, loss, or damage arising from a claim of the infringement or use of such patent or patented article, provided that the contractor notifies the owner as soon as such a claim is made, and obeys the instructions of the owner in connection therewith.

XI. *Labor.*—This contract is executed and delivered upon the understanding that, if desired by the United States Shipping Board Emergency Fleet Corporation, a provision, satisfactory in form and terms to the United States Shipping Board Emergency Fleet Corporation, restricting the hours of labor of laborers and mechanics employed by the contractor or by subcontractors and/or providing for the payment o fextra compensation for overtime work, will be inserted in the contract, with the same force and effect as if inserted in the contract before the execution and delivery thereof. If by reason of any such instruction the cost of any vessel hereunder shall be increased, then the sum to be paid by the owner to the contractor as herein provided shall be agreed upon by the parties, and if not agreed upon, shall be determined as provided in Article VII hereof.

XII. *Not assignable.*—This contract may not be assigned by the contractor without the consent of the owner in writing, provided, however, that nothing in this contract shall be construed as prohibiting the assignment of payments due, or to become due, to the contractor, for the purpose of obtaining credit for furthering the construction hereby undertaken, but the owner may by writing make such prohibition.

In order to effectuate the provisions of Article V hereof, the contractor agrees that every contract made by it for the furnishing to it of parts, materials, supplies, machinery, and equipment, or the use thereof for the purpose of constructing the vessels agreed to be constructed hereunder, will in its terms be made assignable to the owner.

XIII. *Members of Congress not to benefit.*—No Member of or Delegate to Congress nor Resident Commissioner is or shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom, but this article shall not apply to any contract within the operation or exception of section 116 of the act of Congress approved March 4, 1909 (35 Stats., 1109).

XIV. *Insolvency of contractor.*—Should the contractor become insolvent, make an assignment, or commit any act of bankruptcy, the owner may and is hereby empowered forthwith to enter, take possession of, and complete the work without giving any notice thereof to the contractor.

XV. *Laborers' and material men's bonds.*—The contractor agrees to procure and keep in force at its own expense, in some company or companies approved by the owner, all such bond or bonds for the protection of claims or liens of laborers or material men as may be required by the laws of the United States.

XVI. *Permits.*—The contractor agrees to comply with all laws, rules, regulations and requirements of the departments of the United States affecting the construction of works, plants, and vessels in or on navigable waters and the shores thereof and all other waters subject to the control of the United States, and to procure at its own expense all permits from the United States, State, and local authorities which may be necessary to begin and carry on the work hereunder, and at all times to comply with all United States, State, and local laws in any way affecting the work carried on under this contract.

XVII. *Cancellation.*—The progress of the work shall be at all times satisfactory to the owner. Should the progress of the work not be satisfactory to the owner, then the owner may, upon 30 days' written notice to the contractor, cancel this contract as to further performance thereof. Thereupon the contractor shall complete only such vessels or parts of vessels as the owner shall direct in writing. The cancellation shall not affect the terms of the contract as to the vessels completed or directed to be completed.

The contractor shall be reimbursed for losses sustained by such cancellation. In computing such losses there shall be included for each vessel under construction a proportionate part of the estimated profit on a completed vessel. Such proportionate part shall not exceed the percentage which the cost of the vessel under construction bears to the cost of a completed vessel. In computing profit or cost the average actual experience of the contractor on vessels constructed for the owner shall be taken as the basis of the computation. In computing such losses the following shall not be included: (*a*) profits on vessels not under construction; (*b*) profits that the contractor might have earned in other transactions.

If the parties can not agree upon the amount of the loss, it shall be determined on the above basis and by arbitrators, one to be chosen by each party and the third by the two so chosen, and the decision of a majority of the arbitrators shall be conclusive and binding upon the parties hereto.

XVIII. The contractor agrees that it will at all times pay the prevailing rate of wages, and that under no circumstances will it pay any wages in excess of the prevailing rate without first obtaining the written approval of the owner. The question of what is the prevailing rate and other questions with regard thereto are subject to the definition and interpretation of the owner. If it should become necessary during the period of this contract to increase the wages of any of contractor's employees, it shall be done only with the written consent of the owner first obtained, in which event the cost of such increase will be borne by the owner, provided that any increase in wages or other increased cost on account of wages made without the written approval of the owner shall be borne by the contractor. If Sunday, holiday, or overtime work be resorted to, it shall be without additional cost to the owner, unless specifically ordered by the owner.

XIX. The contractor's officers, agents, consulting architect, engineer, or other person, retained or employed assistant or consulting agent, or in any other capacity, and all other employees, shall at all times be satisfactory to the owner. No one shall be employed by the contractor, either directly or indirectly, who is not satisfactory to the owner and whose employment is not approved by the owner. If at any time during the existence of this contract in the opinion of the owner any such employee or person is not satisfactory, the contractor agrees, upon notice from the owner, to immediately dispense with the services of such person. All contracts of employment entered into by the contractor and all persons employed shall be subject to the provisions of this paragraph of the contract.

XX. *Checks.*—Payments hereunder shall be made by the owner by check addressed to the contractor by mail at 155 North Clark Street, Chicago, Ill.

In witness whereof the parties hereto have caused this contract to be signed by their respective officers and their corporate seals to be hereunto affixed, duly attested, on the day above stated.

[SEAL.] PENSACOLA SHIPBUILDING CO.,
By A. C. KETLER, *President.*

Attest:
PAUL P. STEWART, *Secretary.*

Countersigned:
M. E. KETLER, *Director.*

[SEAL.] UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION,
By CHARLES PIEZ, *Vice President.*

Attest:
LESTER SISLER, *Secretary.*

SCHEDULE B.

For 9,000-ton dead-weight ship.

	For 1 ship.	For 10 ships.
	Net tons.	*Net tons.*
Plates	2,250	22,500
Shapes	850	8,500
Flats and rounds	200	2,000
Total	3,300	33,000

Base price, 3¼ cents per pound for plates, 3 cents per pound for shapes, and 2.9 cents per pound for flats and rounds, f. o. b. mills.

Total estimated price, $210,000 for 1 ship; $2,100,000 for 10 ships.

Dates.	Plates.	Shapes.	Flats and rounds.
Jan. 1, 1918	100	100	50
Feb. 1, 1918	200	300	100
Mar. 1, 1918	2,400	500	200
Apr. 1, 1918	2,800	1,500	300
May 1, 1918	3,500	2,000	500
June 1, 1918	5,000	2,000	400
July 1, 1918	6,500	2,000	400
Aug. 1, 1918	2,000	100	50
Total	22,500	8,500	2,000

SCHEDULE C.

MACHINERY AND EQUIPMENT.

Required.	Description.	Manufacturer.	Price.
10	Steam turbines or reciprocating engine, if approved by the owner: multiple expansion 3,000 S. H. P. understeam at 200 pounds I. S. P. 50 deg. superheat, 28-inch vacuum, propeller speed 90 R. P. M.	De Laval Steam Turbine Co., Trenton, N. J.	$730,000
10	Main condensers, Admiralty type, cylindrical pattern, 4,500 square feet cooling surface.	Wheeler Condenser & Engineering Co., Carteret, N. J.	195,000
10	Wet vacuum pumps, 9 by 24 by 12, steam driven, single type, 500 pounds max. per hour at 200 pounds gauge pressure, 50 deg. superheat.	do	
10	Circulating pumps, 14-inch single stage double suction, centrifugal, 4,500 G. P. M., 25-foot head.	do	

SCHEDULE C—Continued.

MACHINERY AND EQUIPMENT—continued.

Required.	Description.	Manufacturer.	Price.
10	Curtis steam turbines, 45 B. H. P. at 3,600 R. P. M. using 42 pounds per B. H. P. hour at 200 pounds gauge pressure, 50 deg. superheat, 2 pounds gauge back pres.	.....do.....	.....
10	Auxiliary condensers, Admiralty type, cylindrical pattern, 1,000 square feet cooling surface.	.....do.....	$60,000
10	Air and circulating pumps, steam driven, 10 by 14 by 14 by 12, bronze fitted.	.....do.....	.....
30	Water-tube boilers, working pressure 200 pounds, heating surface 3,000 square feet, superheat 50 deg., or Scotch boilers as approved by the owner.	De Pere Manufacturing Co., De Pere, Wis.	381,000
10	Evaporators and distillers, 25-ton.....	Kerfott Engineering Co., New York, N. Y.	12,000
10	Oil sets, including pumps.....	Thos. Garrett, New York, N. Y..	12,000
10	Main thrust blocks, including shafts and bearings.	.....do.....	40,000
10	Propeller, line shaft, stern tube, steady bearing and tail shaft sets.	.....do.....	200,000
100	Steam winches.....	Jackson & Church Co., Jackson, Mich.	80,000
10	Steam steerers.....	.....do.....	52,000
10	Windlasses.....	Hart-Parr Co., Charles City, Iowa.	46,000
10	Capstans.....	Jackson & Church Co., Jackson, Mich.	12,000
10	Refrigerating machines.....	Triumph Refrigerating Co., Cincinnati, Ohio.	10,000
10	Generating sets, with switchboards.....	United Electric Construction Co., New York, N. Y.	11,000

Senator JONES. Admiral, I want to ask you about a particular contract that there have been a good many rumors concerning in our country. I think it is the Sloan Corporation, of Seattle. Have you the analysis of that contract there?

Admiral BOWLES. I can tell you generally about the Sloan contract, but I can not remember all the figures.

Senator JONES. I would like to know who that corporation is.

Admiral BOWLES. This contract was made on the 18th day of May, with the Sloan Ship Yards Corporation, a corporation organized under the laws of the State of Washington. The contractor agrees to deliver 16 wooden cargo-carrying steamers, complete, with propelling machinery, auxiliaries, and equipment, afloat at the works of the contractor, at Olympia and Seattle, Wash., the first ship to be delivered not later than January 31, 1918, and so on. The owner agrees to pay——

Senator JONES. Just a moment, Admiral. Do you know when this corporation was organized?

Admiral BOWLES. No; I do not.

Senator JONES. Have you information at your office that will show when it was organized?

Admiral BOWLES. It is possible, but I do not know.

Senator JONES. Do you know how long it has been in the shipbuilding business?

Admiral BOWLES. I have no knowledge of that, but I think it was a new company.

Senator JONES. Do you know whether any of the men who composed this company had been in the shipbuilding business?

Admiral BOWLES. I do not. You must remember, Senator, that I entered the Fleet Corporation on the 13th day of August of this year, and this is one of the troubles I inherited.

Senator JONES. Then, Admiral, what I would like would be for you to acquaint yourself with all the facts and information that you have at your office with reference to this company. I will not ask you about it now, but I will take that up later. I want to do this in order to get the facts in the record in justice to this company as well as to find out what the actual facts are, because there have been some very ugly rumors circulated about this company—how it got its contract and all that. So I would like to have you acquaint yourself with all the facts and the information you have with reference to it, so that at a later time we can go into that contract in detail. I will not ask further about it here.

Senator HARDING. Admiral, do any of these contractors write their own specifications?

Admiral BOWLES. Yes; but they are all subject to our revision. Of course if the contractor offers to build a ship of his own design and which he has built before, why, we then take his plans and specifications and pass upon them as to their sufficiency.

May I go on with the requisitioning of ships, Mr. Chairman?

The CHAIRMAN. Was this contract for steel ships?

Senator JONES. Their contract was for wooden ships.

Admiral BOWLES. The power to requisition vessels was delegated by the president to the Fleet Corporation under the Executive order of July 11, and in accordance with that Executive order the Fleet Corporation issued a telegram on August 3, 1917, to each shipbuilder in the country requisitioning all power-driven, cargo-carrying, and passenger vessels above 2,500 tons dead weight, and all the materials, machinery, equipment, and outfit pertaining thereto.

The letter was sent upon the same day and is a mere extension of the telegram. It orders the shipbuilders to proceed with all possible dispatch in the completion of these vessels and states that compensation will be determined later. The shipbuilder is asked to supply information as to the vessels he is building, to submit their plans and specifications, his contracts, and the payments that have already been made to him. The letter also asks for the names of the owners and directs the shipbuilder not to enter into any additional contracts without permission.

I want to call attention to the fact that this requisitioning order requisitioned or commandeered these ships themselves and not the contracts. The contracts, of course, were entirely unknown to the Fleet Corporation, and we could have no knowledge of them until the ship builders sent out their copies of these contracts.

I entered upon my duties in the Fleet Corporation on the 13th of August, and among other things assigned to me was to take charge of this requisitioning business. On the 16th day of August I issued a letter to all shipbuilders through our district officers, in which I directed the district officers to take charge of the completion of these vessels, to take over the former owners' inspectors wherever they were competent and apply them and keep them on the job. That letter also informed the shipbuilders that until we had an

opportunity to examine their contracts we would pay them their actual outlay for labor, materials, and overhead. I saw it was necessary that every shipbuilder should be kept supplied with money; otherwise the work would stop.

Now, from the number of contracts that had begun to come in, I saw it was going to be impossible for us to examine each contract on its merits and arrange a method of compensation to the shipbuilder based upon such an examination; so that on August 22 a letter was issued to the shipbuilders in which we made them the offer, as a reasonable price for the completion of the work, of an amount equal to the payment set forth in the contract and not yet made. In other words, the corporation decided that it would be paying just compensation to the shipbuilders if it paid them an amount equal to the amount remaining unpaid under the contracts under which the ships were being constructed. Of course this was an arbitrary and wholesale way of establishing compensation to the shipbuilders——

Senator NELSON. But they got under that plan all they were entitled to under their contracts?

Admiral BOWLES. They got every cent that they had expected to get. Of course various plans were considered by us for establishing this compensation, and you will recognize that under the law of eminent domain it might have been necessary for us, pursuing the usual methods, to appraise the vessel as of August 3, and then establish what the value was then, what the shipbuilder had received, and what was due him for the completion of that ship; and I was urged by some of those whom I had associated with myself in this work that that must be done. But I felt that if I attemptd to do that all over the United States, in about 431 contracts, and applied what might be called an ordinary method of compensation to the shipbuilders, I would have at least a third of them in bankruptcy before we really got started. Therefore this method was adopted, and within a very short time had been accepted by a large majority of the shipbuilders.

Senator NELSON. This method of paying them what was due them under the contracts?

Admiral BOWLES. Yes, sir. At the present time I believe there are only two shipbuilders who have not fully accepted the conditions of the requisitioning program. In one case the reason for delay was because we did not discover until quite recently that the ships building by this company were subject to requisition. In the other case the people who controlled the shipyard have been endeavoring to reach better terms than they were entitled to. Mr. Cuthell tells me at this moment that there is only one company outside of the one last mentioned.

Senator NELSON. One company that has not accepted your terms?

Admiral BOWLES. Yes, sir.

Senator NELSON. That is a very fine record, I think.

Admiral BOWLES. As soon as we got from the shipbuilder an answer accepting the terms of our letter of August 22 we then wrote them a specific order to proceed with the completion of these vessels, and told them exactly what they would be paid, and established the method of payment, which was to make the payments as they became due under their original contracts. Of course some vessels were

building under cost-plus contracts, and all those arrangements were made.

Senator NELSON. In other words, you carried out the contracts?

Admiral BOWLES. We certainly did.

The CHAIRMAN. The original contractors in consideration of what you would pay them, were to go on looking after the work, were they not? They were not simply to quit and let you take hold of the ship at that point?

Admiral BOWLES. That is the arrangement with the original owners, Senator, that you are asking me about now?

The CHAIRMAN. Yes.

Admiral BOWLES. With regard to the original owners, we took over their inspectors and put them on our pay roll. That had the advantage of not interrupting the progress of the work of those who knew about it, and it kept the original owners in a state of quiescence, because they felt that, however these ships might be disposed of in the future, they still knew what was going on. But we forbade the shipbuilders to receive any money from the original owners or any directions from them. We were glad to have them, where they had engineers or superintendents to volunteer their services and give us such advice as they wished to, and we always paid attention to it; but we prevented them from giving any orders to the shipbuilders with regard to their vessels.

The reason for this action was that our conception of the requisitioning order was that on August 3 the United States took actual title to these ships, they became the property of the United States, and the duty of giving instructions with regard to them remained with us.

In addition to the instructions that I have told you about, we issued on the 16th of August certain instructions to all the shipbuilders with regard to the completion of these vessels. These instructions were based upon the consideration of hastening the completion of the vessels, the rendering them of the least visibility in the war zone, supplying them with guns, magazines, and quarters for the armed guard, and additional boats and lookouts necessary for safety in the war zone. These instructions were issued specifying the things that we thought could be omitted from vessels that would hasten their completion, and we specified only a few things which must be done in every case, and they related to the military and ware zone requirements.

Senator NELSON. That ought not to go in the record, ought it?

Admiral BOWLES. I think not. In addition to issuing these instructions, we sent responsible officers in the Fleet Corporation to visit every shipyard, to go over with the builders every vessel, to take up every item in this letter, and issue specific orders on the spot as to what was to be done with each vessel, in order that we might not lose the time that would result from having reports made and letters written in regard to the ships.

Now, I should like to explain the attitude toward the former owners. As soon as we received information from shipbuilders stating the names of the owners and the contracts under which their ships were building we wrote a letter to the former owners and told

them that their ship had been requisitioned, asking them to supply us with full information as to the payments they had made, to present the actual proof of payment, telling them that it was the policy of the Fleet Corporation, so far as practicable, to reimburse them for the payments that they had actually made, and asking them, in addition to those payments, to submit to us a full statement of any additional expenses which they had been put to for superintendence, etc., in connection with these ships. In other words, it was to supply us with the information upon which we could base the just compensation to the former owners contemplated by the law. That information has been in large measure supplied by the various owners, and in some few cases actual settlement has been made.

But, seeing the magnitude of this task and how it might affect the domestic owners, we early invented a policy which would avoid the troublesome negotiations of a settlement and the probability of litigation by offering to every American owner to return his vessel to him, either when it was completed or after the war was over, on the condition that he should reimburse the Government for the expenditures that it had made in the completion of the ship, in expediting it and in arming it, should he then want to take the ship over, agree to the Shipping Board's requisitioning program, and operate that vessel under the direction and for the purposes of the Government.

I think I can fairly say that a very large proportion of the American owners have accepted or indicated their desire to take advantage of those conditions, and that thereby we have eliminated a large proportion of the Government's investment in these requisitioned vessels. We have not discouraged American owners from pursuing their occupation and their collateral developments, of which these ships form a part, and we have avoided the principal part of the litigation that was expected as the result of this requisitioning program.

The CHAIRMAN. How about the foreign owners?

Admiral BOWLES. I think that in the tables I submit to you in connection with the requisitioning program there are one or two things that I might mention now. One is the proportion of these vessels which were owned by domestic owners and by foreign owners. I have explained to you the policy under which we are negotiating with American owners, but as regards foreign owners I think, Mr. Chairman, I should like to deal with that matter in executive session. But I will state to you now that of the 431 vessels subject to requisitioning, approximating 3,000,000 tons dead-weight, 183 were domestic-owned vessels of a dead-weight tonnage of just about a million and a half. The other half, the other million and a half tons, were placed in American shipyards by foreign owners, and of those the British owned nearly 1,000,000.

Perhaps I should explain that I am dealing solely here with the requisitioning of vessels under construction, and that matter should not be confused with matters that have been heretofore before this committee relating to the requisitioning of going ships, which is entirely another matter and concerns the Shipping Board only and not the Fleet Corporation.

The CHAIRMAN. Have you the number of those anywhere in the record?

Admiral BOWLES. I know nothing whatever about that, but I did hear some numbers mentioned.

Senator NELSON. We will have to get that from Mr. Hurley.

Senator JOHNSON. That has been testified to, I think. Between June 15 and July 10 there were three; between July 11 and August 3 two that went out from under the flag, according to the testimony of Mr. Donald the other day.

The CHAIRMAN. I am speaking about the number we actually requisitioned of completed ships.

Admiral BOWLES. I think that was given in Mr. Hurley's statement.

As to the results of the requisitioning program I perhaps should make some statement. It has resulted in the actual control of the output of all private yards in the United States by the Fleet Corporation. I perhaps should explain to you that the program of construction of the Fleet Corporation necessitates the use of the maximum capacity in various manufacturing industries, and that in order that there shall be no delay in any shipyard it is necessary for the Fleet Corporation to exercise its power to distribute these manufacturing capacities uniformly and fairly among the various shipyards. That is only possible through the requisitioning. I suggest to you that you hear the purchasing officer of the corporation, Mr. Brown, who has had charge of that matter.

In addition to that, it has enabled the Government to carry out its program at reasonable and fair prices by the elimination of competition of foreign nations and private owners. It has secured to the United States the ships being built in our yards with money borrowed from us. It has enabled the Fleet Corporation to assure itself that every vessel leaving our ports when completed will have all the safety appliances necessary for the war zone, and a suitable armament and suitable quarters for the armed guard—things that are absolutely essential to the safety of these ships.

Now, it has been claimed by some that the requisitioning program caused delay in the completion of the ships. It is hardly possible that such a sweeping order as the requisitioning order and the transfer of authority from a vast number of private owners to any Government institution could be accomplished without some delay, but the delay, in my judgment, was largely psychological, and there was no actual occasion for it. In cases where there was delay it was principally due to the desire of shipbuilders to take advantage of the requisitioning program to get more money for themselves.

Senator NELSON. Which they did not get, according to your statement?

Admiral BOWLES. They did not get it from me.

Senator NELSON. I mean, they did not get it from the Government?

Admiral BOWLES. It is only since the Shipping Board has increased wages that we have begun to have complaints from the builders of the requisitioned vessels that they are not receiving suitable compensation. That has been largely allayed by the decision of the Shipping Board to pay to builders of requisitioned vessels also the increase in wages which they have made.

Senator NELSON. That is, the arbitration increase and the bonus increase both?

Admiral BOWLES. Yes. There has been only one case, Senator, in which we have paid more than the contract prices arranged for for requisitioned vessels, and that was done in this way. There have been a few cases where the former owners, knowing that the vessels were to be transferred to them on completion, have been willing to authorize the Fleet Corporation to pay an extra price to get that ship finished, so that while we have paid out the money we will get it all back when the ship is finished, and it is not a matter that affects the United States in any way, except as an accommodation to the original owner.

I am submitting a complete list of the vessels requisitioned, giving the name of the shipyard and its location, the name of the former owner, the dead-weight tonnage, the contract price, the nature of the contract, and the estimated date of completion. In addition to that, I am giving you a combined summary table showing the number of vessels in each shipyard, their dead-weight tonnage, their total cost as specified by the contract, and the average cost per dead-weight ton.

The CHAIRMAN. Will these tables show the number of vessels upon which work has been begun and the number of vessels not yet started?

Admiral BOWLES. That is shown in the tables which I am also submitting—the exact progress on every vessel.

Senator NELSON. Is it proper for these things, Admiral, to go into the record? If there is no objection, I should like to have them go in, unless there is something in them of a confidential nature.

Admiral BOWLES. I see no reason why they should not go in.

Senator NELSON. Then I ask that they be printed in the record.

The CHAIRMAN. Without objection, these will go in the record.

Admiral BOWLES. In addition to that, I am submitting a table giving a list of these requisitioned vessels by types, showing the number of cargo vessels, tankers, colliers, passenger vessels, and ore carriers, and also a special list giving the number of vesels on the Lakes.

Senator JONES. You see no objection to that going in the record?

Admiral BOWLES. I see no objection whatever.

Senator NELSON. Nor to your letters of instructions, either?

Admiral BOWLES. None.

Senator NELSON. Let it all go in, then, Mr. Chairman.

The CHAIRMAN. Without objection, all those tables and letters will go in.

(The tables and letters referred to are here printed in full, as follows:)

Total number and total dead-weight tonnage of all requisitioned vessels.

[Dec. 20, 1917.]

Builder.	Number of hulls.	Total dead-weight tonnage.	Total cost.	Average cost per ton.
Albina	6	21,800	$3,019,300	$138.50
American	38	153,000	27,348,730	178.05
Ames	13	113,900	16,639,400	146.09
Baltimore	11	67,000	11,032,600	164.66
Bethlehem	15	142,510	23,791,115	166.94
Chester	28	248,200	35,320,800	142.30
Columbia River	10	88,000	11,640,640	132.28
Craig	2	6,000	890,000	148.33
Wm. Cramp & Son	9	61,758	12,695,716	205.57
J. F. Duthie & Son	12	105,600	14,278,620	135.21
Fore River	9	93,200	11,112,440	119.23
Globe	4	14,000	2,150,000	153.57
Great Lakes	31	119,300	19,485,500	163.33
Hanlon	2	11,000	1,469,050	133.55
Harlan & Hollingsworth	12	70,110	9,184,572	131.00
McDougall-Duluth	9	28,300	5,317,413	187.89
Manitowoc	14	48,400	6,170,000	127.47
Merrill-Stevens	1	6,500	1,137,500	175.00
Saml. L. Moore Sons	3	11,800	2,865,680	242.85
Moore & Scott	7	63,500	8,922,950	140.51
New Jersey S. B. Co	12	60,000	10,500,000	175.00
New York S. B. Co	23	184,620	12,495,626	67.68
Newport News	9	87,910	8,596,000	97.78
Pennsylvania	19	191,500	24,871,875	127.87
Pusey & Jones	14	58,800	9,421,250	160.22
Seattle Const. Co	12	93,000	11,920,000	128.17
Skinner & Eddy	8	70,600	11,702,800	165.74
Standard	13	91,900	13,552,550	142.80
Staten Island	5	17,500	2,514,000	143.65
Sun	16	161,100	22,759,054	141.27
Tampa	2	7,000	1,225,000	175.00
Texas	13	120,300	18,057,030	150.10
Toledo	10	29,300	4,128,000	140.88
Union Iron	24	270,000	39,366,680	145.58
Williamette	15	132,000	20,236,000	153.53

Total requisitioned vessels	431
Total dead-weight tonnage	3,056,008
Total cost	$435,787,890
Total average cost per dead-weight tonnage	$142.66

Summary list of all requisitioned vessels by types, showing total dead-weight tonnage for each type and average cost per dead-weight ton for each type separately; also average cost per dead-weight ton for all types combined, and total estimated cost for all ships requisitioned.

	Total number.	Total dead-weight tonnage.	Average cost per dead-weight tonnage.	Total cost.
Cargo vessels	346	2,282,910	$149,042	$340,250,887
Tanker vessels	60	584,130	121,007	70,684,245
Colliers	10	77,150	64,290	4,960,032
Passenger and cargo	9	43,558	195,082	8,497,408
Ore carriers	6	68,260	166,939	11,395,324

Grand total of requisitioned vessels	431
Grand total tonnage	3,056,008
Grand total average cost per dead-weight tonnage	$142,600
Grand total estimated cost of all requisitioned vessels	$435,787,896

Includes estimated cost of vessels building on cost plus basis.

Requisitioned vessels of ocean type building on Great Lakes.

Builder.	Number of hulls.	Dead-weight tonnage.	Total cost.	Average cost per dead-weight tonnage.
American	34	107,600	$20,269,480	$183.37
Globe	4	14,000	2,150,000	153.57
Great Lakes	30	106,300	18,947,000	178.24
Manitowoc	14	48,400	6,170,000	127.47
McDougall-Duluth	9	28,300	5,317,418	187.89
Toledo	10	29,300	4,128,000	140.88
Total	101	333,900	56,981,898	170.65

Reconveyed, not suitable for ocean service and not included in the above, 5 vessels, 59,000 dead-weight tonnage; 24 vessels, dead-weight tonnage 85,090, completed and accepted.

Senator JONES. Let me ask you a question right there; that may not cover it. Have you requisitioned all the vessels in our shipyards being built for foreign Governments?

Admiral BOWLES. Every one over 2,500 tons, power-driven vessels.

Senator JONES. And it would not be the policy of the Fleet Corporation to permit contracts to be made in our yards for foreign Governments for vessels over 2,500 tons.

Admiral BOWLES. I think I can show you, Senator, that for the purposes of the Government every bit of the principal materials required should be at the disposal of the United States, and that it is not good policy to permit any contracts to be made for foreigners or anybody else.

Senator HARDING. Apropos of your last statement, Admiral, I have a letter here from a very sane man on the shipping question, in which he makes this statement. He is speaking of men who can get no contracts from the Government and are not allowed to build for private parties. He is writing from the West coast. He says:

> I was talking to one to-day who says his plant has been ready since May, with two ways all ready for building ships. He has received no contracts, nor is he permitted to build for private interests, American or foreign. He has his money invested in his plant, has his organization complete, and his employees are eating their heads off waiting for the Government to decide what it will do with them or to them.

Admiral BOWLES. Might we know who the gentleman is, Senator?

Senator HARDING. I do not know the name of the firm. The name of the writer I will tell to you individually; I do not know that he cares to appear before the committee. You will recognize his eminence when I show it to you.

Admiral BOWLES. Of course, I am only answering as to the general situation, but I think I can show you clearly what that is.

Senator JONES. At any rate in a case like that, Admiral, it would be the policy of the corporation to get that yard busy as soon as possible, would it not?

Admiral BOWLES. Absolutely.

Would it be desirable, Mr. Chairman, for me to make any further analysis in regard to some of these tables I am submitting?

Senator NELSON. Yes; give us all of them.

Admiral BOWLES. Of all the vessels that are building under requisition there are 346 cargo vessels, 60 tankers, 10 colliers, 9 passenger and cargo vessels, and 6 ore carriers.

Senator NELSON. What proportion of these vessels that you requisitioned are now afloat—the number? You gave it once, I think.

Admiral BOWLES. I gave you simply the list of the vessels that had been actually completed. Of the 431 vessels, 158 had their keels laid before August 3.

Senator NELSON. But how many are now completed of the total number?

Admiral BOWLES. The total number completed is 49 ships.

Senator NELSON. Forty-nine ships of the requisitioned ships?

Admiral BOWLES. Yes; but in order to give you an idea of their progress, apart from the diagrams I have shown you, I say that of the 431 vessels, 158 keels had been laid before August 3. Since August 3, 101 additional keels have been laid. There are 172 of which the keels are not yet laid, and there are 80 vessels that have been launched since August 3.

On the Great Lakes there were 101 vessels requisitioned, of 334,000 dead weight tons.

Senator HARDING. Admiral, were any of those Lake vessels requisitioned short in bunker capacity for trans-Atlantic service?

Admiral BOWLES. All of the vessels we requisitioned on the Lakes and finally took were suitable for trans-Atlantic service, and most of them had been built for that specific purpose.

The CHAIRMAN. Were there any changes in the designs or specifications as to these requisitioned vessels?

Admiral BOWLES. Yes. I have already described the orders that were sent out with regard to changes. Some of those changes were necessary for defense and some were necessary to increase the safety of the vessels, as by installing additional bulkheads. Others were necessary to decrease the visibility—taking down masts and taking off derricks.

The CHAIRMAN. Were those changes the cause of any delay?

Admiral BOWLES. I think not. Wherever a vessel was approaching completion and it was found that a change would cause delay we let the vessel go without those changes. Many of these changes reduced the time necessary for the completion of the ships.

Senator CALDER. Admiral, have you concluded with the requisitioned vessels?

Admiral BOWLES. I have concluded with the requisitioned vessels.

Senator CALDER. In making your contracts with private concerns for the building of ships, in many instances have the contractors failed to materialize with substantial progress?

Admiral BOWLES. Yes.

Senator CALDER. My attention has been called to one case, the Traylor Ship Building Co., of Cornwells, Pa. I understand their contract calls for 10 wooden ships. I have a statement here that a contract was made on June 16, and late in November they had made no progress at all. Are there many like that, or is the statement I have made correct?

Admiral BOWLES. I think they have made some progress, and the principal reason for their delay is that which affects all the wooden-

ship builders—the lack of material. There are shipbuilders whose condition of progress is not equal to Traylor's in proportion to what they have contracted to do.

Senator HARDING. Appropriate to that question, Admiral, have we undertaken to build wooden ships larger than were approved under the old wooden ship program when we were building wooden ships?

Admiral BOWLES. As I understand the situation, Senator, an ocean-going steam wooden cargo vessel has hardly been built in the United States as a regular thing for between 60 and 70 years. In those days, in the fifties and sixties we did build wooden steamers of larger size than those called the Ferris type; but of course in those days lumber was more plentiful and it was easier to get it in larger sizes suitable for construction.

Senator HARDING. The point I was leading to is this. Is not the difficulty in furthering the wooden ship program due to the fact that the size decided upon makes the material very difficult to get?

Admiral BOWLES. Yes; that is true. But the object in building these wooden vessels was to provide ocean transportation, and the purpose of the design was to build the smallest vessel and the vessel using the smallest timbers that would make it worth while for that purpose. Now, if the vessel had been, say of 2,000 tons dead-weight it would have been practically worthless for ocean transportation, and while the timbers would have been smaller, they would not have been, in my judgment, so much smaller as to have made a material difference in the speed of production.

Senator NELSON. Would not wooden vessels be likely to be sooner completed than steel vessels?

Admiral BOWLES. I think that was a popular notion.

Senator NELSON. Is there anything in that popular notion? Is there any merit in it or is it really true?

Admiral BOWLES. The answer to that, Senator, all depends upon the scale on which you attempt these things. The scale upon which it has been attempted to go into wooden ship building is entirely beyond the capacity of the supply of material. You might take an individual wooden vessel in a locality where the timber was near and labor was plentiful and build it as swiftly as you could a steel vessel, but not otherwise.

Senator NELSON. But even then you could not build it swifter than a steel vessel.

Admiral BOWLES. I think not. The facts are clear.

The CHAIRMAN. As I recall Mr. Donald's statements regarding tonnage of ships that he was operating before he came into the board, none of them were as much as 3,000 tons, perhaps not as much as 2,500 tons. He operated a line betwen New York and the West Indies, but not trans-Atlantic. They were cargo ships.

Admiral BOWLES. Have I answered Senator Calder fully?

Senator CALDER. I think you have. I have a statement here, gentlemen, which refers to a number of wooden shipyards with little or no progress made. What is the reason of that?

Admiral BOWLES. The reason for that is the slow delivery of yellow pine on the Atlantic coast.

Senator CALDER. Is that caused by a change of plans?

Admiral BOWLES. Some delay has been caused by a change of plans, but that is not the principal cause of the delay. I should like

the opportunity, Mr. Chairman, of explaining fully concerning the changes in the plans of the wooden vessels.

The CHAIRMAN. Will you do that in executive session?

ADMIRAL BOWLES. No, sir; I would like to do that in public.

Senator HARDING. Let us have it right now, Mr. Chairman.

The CHAIRMAN. Of course you did not go in until August 13. Many of these designs and plans, I take it for the wooden vessels, had been perfected before that.

Admiral BOWLES. When I went in practically all the wooden contracts had been made. There were a few made afterwards. The designs had been established, the specifications had been issued, and a large portion of the orders for lumber had been placed.

The CHAIRMAN. Do you know the changes made prior to your going in?

Admiral BOWLES. The changes made prior to my going in amounted to very small things, and were principally changes reducing the dimensions and sizes of lumber in order to make it easier for the contractors to supply, but they did not affect the design of the ship. What I found was that the plans had been approved by the American Bureau of Shipping, which was under agreement with the Fleet Corporation to class these ships first class for 15 years, and to survey their construction. I also found that Lloyds, the English classification society, and the one principally used throughout the world, had refused to class these ships for any term. And so I inquired from the chief surveyor of Lloyds what his reasons were, and he gave me his reasons quite extensively. There were two principal reasons: One was that he objected to the location of the engines and boilers in the center of the length of the ship, fearing that the changes in shape which occur in all wooden vessels would interfere with the operation and maintenance of the machinery, and principally the shafting; his other reason was that the floors, that is the frames in the bottom of the ship, were insufficient in depth to prevent the deformation of the bottom. There were various other smaller things. I considered those things with Mr. Ferris. I submitted the plans of the Ferris vessels to various old shipbuilders, men of great experience. I know, of course, of my own knowledge, having started in while wooden shipbuilding was still common in this country, that there is no absolute standard in wooden ship construction. It is a question of experience in general.

The CHAIRMAN. Does the American bureau have any rules for building such vessels?

Admiral BOWLES. Substantially, no. These are vessels which are of a type which have been obsolete 50 or 60 years.

The CHAIRMAN. What is the type, generally speaking?

Admiral BOWLES. Why, it is a vessel with wooden frames and wooden floors, diagonally strapped on the sides, steel strapping, planked with wood, with decks of wood, and driven by reciprocating engines of 1,500 horsepower, steam boilers, and single screw.

The CHAIRMAN. Double bottom?

Admiral BOWLES. There is no double bottom in a wooden vessel.

The CHAIRMAN. How were the keels?

Admiral BOWLES. Wooden keels.

I considered these objections of Lloyds with Mr. Ferris, and, as I say, I obtained opinions from experienced wooden-ship builders.

The consensus of opinion was that the Ferris type was satisfactory as designed. I felt, however, that in building substantially 400 of these ships that it was not wise to take a risk which could be avoided by some slight change, and so I decided to do these things: To increase the depth of the floors and to practically double them by placing an additional timber on the top of each floor, a 12-inch timber 40 feet long, except under the engines and boilers, where it had to be placed between frames. I introduced a wooden bulkhead in the middle of the forehold and in the middle of the afterhold. I made all the bulkheads which had been diagonal bulkheads into log bulkheads, and we stiffened up the shaft alley by heavy logging.

In addition to that I found that the specification for the quality of the southern pine which had been contracted for was unsuitable for planking and decking and parts of the vessel exposed to the weather, and I changed it to what it ought to have been in the beginning, and required heart yellow pine.

The CHAIRMAN. Did the American Bureau of Shipping suggest that?

Admiral BOWLES. No.

The CHAIRMAN. None of those changes?

Admiral BOWLES. None of those changes were suggested by the American Bureau of Shipping. They approved them, and we have a letter on file stating that they believe that now everything has been done which it is possible to do in wooden-ship construction, so far as design is concerned, to make these ships substantial and seaworthy.

Senator JONES. Who make up this American Bureau of Shipping and what experience have they had?

Admiral BOWLES. The American Bureau of Shipping is an old institution, started, I think, in 1862, and it has been carried on for the survey of American vessels and their classification for insurance. It has been reorganized within the last two or three years and new money and new people have gone into it, and it has a set of rules for wood and steel construction and a staff of surveyors for testing materials and inspecting the progress of work in shipyards and the classification of vessels for insurance.

Senator NELSON. Is it incorporated?

Admiral BOWLES. I think it is.

Senator NELSON. From what source do they get their income?

Admiral BOWLES. They get their income from fees paid by the shipbuliders for this service; they are paid by the shipbuilders or the owners, as the case may be.

The CHAIRMAN. The statement regarding them in Mr. Hughes's report, a late publication, Handbook of Ship Calculations, Construction and Operation, is [reading]:

American Bureau of Shipping.—This society was incorporated by act of the Legislature of the State of New York in 1862 for the purpose of collecting and disseminating information upon subjects of marine or commercial interest, of encouraging and advancing worthy and well-qualified commanders and other officers of vessels in the merchant service, of ascertaining and certifying the qualifications of such persons as shall apply to be recommended as such commanders or officers, and of promoting the security of life and property on the seas. Home office in New York.

Senator JONES. According to that, it apparently does not have much to do with looking after the construction of ships?

The CHAIRMAN. It would not appear so from their original charter. This reorganization that the admiral mentions may have brought that in. Do you remember when that took place, Admiral?

Admiral BOWLES. I can not say definitely, but I think it was two or three years ago.

Senator JONES. Who was at the head of the reorganization?

Admiral BOWLES. Mr. Stevenson Taylor, of New York, is the president of it.

Senator JONES. What experience has he had in shipbuilding, do you know?

Admiral BOWLES. Mr. Taylor was for many years a member of the firm of Fletcher & Co., in Hoboken, builders of engines and boilers and of river and passenger vessels around New York, one of the oldest and most experienced firms. After that he went with Quinard & Co., who are also builders of engines and boilers and ship machinery. He has been for many years a consulting engineer of the Old Colony Steamboat Co., and, so far as I know, has been connected with the business all his life.

Senator JONES. Has he had anything to do with the building of ships, as distinguished from boilers and machinery?

Admiral BOWLES. No, I think not.

The CHAIRMAN. Who were the other officers?

Admiral BOWLES. The chief surveyors are the active people; Mr. McClelland, Mr. Sharpe, and Mr. Lang.

The CHAIRMAN. Is Mr. McClelland still with them?

Admiral BOWLES. That I am not quite sure about. The person that I had dealings with was Mr. Sharpe, the chief surveyor.

The CHAIRMAN. Who is Mr. Lang?

Admiral BOWLES. Mr. Lang is the chief wood surveyor.

The CHAIRMAN. What has been his business before, if you know?

Admiral BOWLES. Mr. Lang was in business in New York in the firm known as Pechin & Lang; he was an old wooden-ship builder.

Senator HARDING. We have a Government inspection service, Admiral, that must pass upon ships before they can go to sea?

Admiral BOWLES. Yes; we have the Steamboat-Inspection Service of the Department of Commerce. They have rules which require the inspection of materials going into boilers, and they inspect certain features of the construction of the ship, and they make certain tests with regard to materials going into the engines. They also inspect all life-saving appliances—boats, davits, and detaching apparatus—hulls, and certain features in regard to the quarters of the crew.

Senator NELSON. But they have nothing to do with the construction of the hulls?

Admiral BOWLES. Yes; they have quite a good deal to do with that, and I am now consulting with them to see if I can not eliminate them as an inspecting force except for life-saving appliances, because so many inspecting forces cause delay in the construction of vessels, and I believe they are going to consent to it.

The CHAIRMAN. Why not utilize them entirely and eliminate these other people?

Admiral BOWLES. Because they are unnecessary and the other people are absolutely essential.

Senator CALDER. They have no organization to provide ships?

Admiral BOWLES. No; their organization is incomplete.

Senator CALDER. And are mostly all seafaring men rather than shipbuilders?

Admiral BOWLES. I beg pardon.

Senator CALDER. Very few of the men in that service have had shipbuilding experience?

Admiral BOWLES. I think very few; but I would like to explain why I say their services are not necessary at the present time for our fleet and the others are. The commercial value of a cargo vessel or an ocean-going ship is largely dependent upon the classification and inspection of the Classification Society. The certificate of Lloyds carries weight and assurance of quality upon which everybody in the shipping business depends, and that is an essential thing.

Senator HARDING. Did Lloyds approve of your revised plans, Admiral?

Admiral BOWLES. No, sir; they did not; and I did not ask them to.

I would like to complete my answer about that matter, because I mentioned that one of their principal objections was that the engines and boilers of our ships were amidships. They thought they ought to be placed in the stern. I went into that matter and gave it a great deal of thought and attention, and I came to the conclusion that Lloyds were wrong; that the wooden vessels would be subjected to much greater strains, particularly when light, with the engines and boilers in the stern than they would when they were amidships; and I think that the consensus of opinion takes that view. My feeling was that the changes we had made in these ships would render them safe. The thing which most often happens to wooden vessels is a deformation of the bottom—that is, the keel actually going upward above its proper place without being apparent on the side of the ship at all. That occurs when the vessel is light and the pressure of water forces the bottom up. Some wooden vessels when docked have been found with the keel gone up as much as 5 or 6 feet. All the changes that I made in the ships were intended to prevent that by the stiffening of the frame and of the bottom and the placing of these bulkheads. I did not ask the Lloyds to classify the vessels, because I thought that we had obtained by their comments and the information that we had everything that would be useful to us in that respect.

I feel that the safety of these vessels and their merit depends more largely than anyone knows, not upon the design of the ship but upon the honesty, I will say, of her construction, the care with which the parts are put together, and the care with which the fastenings are placed and made secure.

The CHAIRMAN. What system of construction is adopted by the Ferris design? Is it transverse of longitudinal?

Admiral BOWLES. It is transverse; there is no other method for a wooden ship.

Senator CALDER. Were the designs for these wooden ships submitted to the American Bureau?

Admiral BOWLES. Yes; they were approved by the American Bureau.

Senator CALDER. And the alteration of the plans, too?

Admiral BOWLES. Yes.

Senator CALDER. What method of inspection, Admiral, do you have in the shipyards where these vessels are being constructed?

Admiral BOWLES. We have the country divided into districts. There are 10 districts, and each district officer is charged with the inspection of the work under contract as well as that of the requisitioned vessels. He is required to have in each shipyard a suitable force of inspectors to follow every detail and to familiarize themselves with the plans and with the progress of the work. They report to him and he reports to us.

Senator CALDER. Does the American Bureau have an inspection service side by side with yours?

Admiral BOWLES. The American Bureau have an inspection service in conjunction with ours.

Senator CALDER. At each yard?

Admiral BOWLES. No; they have a representative which covers a district. The only place where they have a representative all the time is in these great fabricating yards. Under the fabricating contracts we have required classifications by both classification societies, and we have arranged that they shall never give divergent instructions.

Senator JONES. You mean Lloyds and the American Bureau?

Admiral BOWLES. Lloyds and the American Bureau both are inspecting every vessel built in these fabricating yards.

Senator JONES. Does each one of them maintain about the same sort of inspectors?

Admiral BOWLES. So far as I know, they do. We do not duplicate inspection of materials. They divide that up among themselves, the American Bureau taking certain ships and Lloyds taking certain ships, and for the fabricating yards we obtain reduced fees from them, because they maintain a permanent force there.

Senator NELSON. What is the difference between what you call a "fabricating yard" and any other yard?

Admiral BOWLES. That will require quite a long explanation, but I am happy to make it.

The CHAIRMAN. Before you get into that I would like to call your attention to what Mr. Hughes says on pages 253 and 255 regarding systems of construction [reading]:

> There are two systems for merchant vessels, viz, the transverse, as shown in figure 39, following Lloyd's or other societies' rules, and the longitudinal or Isherwood, as in figure 40. The former has a large number of comparatively small frames closely spaced, connected by brackets to beams, thus forming a complete section.

And on page 255 he says [reading]:

> Until recent years iron and steel merchant vessels were framed on the transverse system, but in certain types, as bulk cargo and oil tankers, this has been replaced by the longitudinal or Isherwood system.

Do you agree with that?

Admiral BOWLES. Yes, sir; that is all true. But that refers to steel ships. He says "iron and steel" ships. Of course, in wooden vessels there is no possibility of longitudinal construction, because the principle of longitudinal construction depends upon the use of long girders, stretching from bulkhead to bulkhead, and, of course, it is girders that we can not get in wood.

Senator HARDING. Admiral, there has been much said here about delays incident to the difficulty in getting the specified yellow pine, has there not?

Admiral BOWLES. Yes, sir.

Senator HARDING. Is there any substitute for the yellow pine which is quite as dependable in wood construction?

Admiral BOWLES. There is Douglas fir on the west coast; but, Senator, will you permit me to finish one point of this wooden-vessel construction by mentioning something about the delay caused by the changes I made?

Senator HARDING. It just occurred to me, and I would like to have had that brought out.

Admiral BOWLES. The changes I made in the wooden vessels I estimate would cost from $20,000 to $25,000 a ship. And, considering how few vessels had been begun, I do not believe that those changes would make any delay in the completion of the program.

The CHAIRMAN. Did they require larger timbers?

Admiral BOWLES. They required nothing larger than was there before, but they required a few more of the larger timbers.

The CHAIRMAN. Can you state when that first change was ordered?

Admiral BOWLES. I think that the change that I made in the specifications of the lumber occurred on the 15th day of October, and these other changes were made within a few days after, perhaps a couple of weeks; they extended over several days.

Now, I am satisfied that there will be no cause for delay in the final completion of the ships owing to those changes, and I ought to explain that there were no changes made in the vessels building on the Pacific coast.

If Mr. Brown, the general purchasing officer, will permit me, I think I will introduce at this point some considerations regarding the supply of lumber which he furnished me, just to show you what the situation is and what the possibilities are in the construction of wooden vessels. There are 240 wooden vessels building on the Atlantic and Gulf coasts and 140 on the Pacific coast. The wooden ships required about 1,600,000 feet of lumber each, so that there was required for the vessels on the Atlantic coast 373,000,000 of southern pine. Orders have been placed at the mills in the South for 331,000,000 feet out of the 373,000,000 feet required, and out of the orders placed in the southern mills there have been shipped to the shipyards up to the present time 114,600,000 feet, or about 33 per cent of the total amount required.

The CHAIRMAN. Do you know when those orders were placed?

Admiral BOWLES. They have been placed, Senator, at various times; that is, our purchasing officers go in the field and place these schedules where they can with the mills, as the mills were able to take them up. So that the orders have been placed continually from the time this was started and are being placed now.

The CHAIRMAN. Beginning when?

Admiral BOWLES. Beginning when, Mr. Brown?

Mr. BROWN. About July, I think.

Admiral BOWLES. With regard to the vessels on the Pacific coast, the situation is this: There were required for the 141 vessels building upon the Pacific coast 239,000,000 feet of Douglas fir. We have not

exact information as to the supply of Douglas fir, but the orders already placed in the mills on the west coast amount to 148,000,000 feet out of the 239,000,000 required. According to the best information that we have, about 60,000,000 feet have been delivered, about 21 per cent.

Not obtaining the quantity of southern pine as fast as our program required and having great difficulty in getting the larger sizes, it was decided about a month or six weeks ago to place some orders for Douglas fir on the Pacific coast, and so 100 heavy units of fir have been placed in the Pacific coast, and the best information that we have is that a small portion of it is already on the way.

That is the situation with regard to the supply of lumber.

The CHAIRMAN. How does that come, by rail?

Admiral BOWLES. It comes by rail.

I want to explain to you what Mr. Brown has given me—that the estimated production of longleaf southern pine per year is about 6,000,000,000 feet. The lumber producers estimate that the portion of it that is suitable for the Ferris type of ship is about 5 per cent. So that the maximum production, if we took everything that was suitable for our ships, would be 300,000,000 feet a year. You will remember that I have told you that we had already ordered for these ships on the Atlantic coast 373,000,000 feet, or more than the possible production of the southern pine country for a year.

The CHAIRMAN. I understood you to say that you required 373,000,000 feet, but had ordered 333,000,000.

Admiral BOWLES. But we have ordered more than the possible production of the South for a whole year.

The CHAIRMAN. Can not that production be increased—I mean not by existing mills—but can not the production be increased?

Admiral BOWLES. I will tell you in one minute what we have done to try to get it all. These figures show that the maximum number of Ferris type vessels that can be built from this material per year is 230. Similar figures with regard to Douglas fir show that the maximum number of Ferris-type vessels which you can build from Douglas fir in one year amount to 140.

In regard to getting this lumber, Senator, we have not only placed orders with the mills and placed inspectors at the mills to inspect every piece that comes off the rack, but, finding that the mills were selling their lumber to builders of buildings and cantonments at higher prices than they had agreed to give us this lumber, and that we could not obtain the whole production that was suitable for us, an embargo was issued, and the embargo finally forbade anybody selling any lumber over 12 inches wide or over 2 inches thick, of any length at all, for any purpose, if it was available for ship timber. That embargo has been applied by our purchasing officers in the South to a very large number of mills, and authority was given to our representatives, if anybody disobeyed the embargo, to take over their mill and operate it for the United States. So that every possible means has been taken and all the power that we have has been exerted to secure this lumber. There has been an impression in my own mind as well as others that the southern producers had failed in what they had promised; and that is true. They overestimated what they could produce, because they promised us a supply of lum-

ber in accordance with these schedules sufficient for our program. They never, however, reached one-half the maximum supply that we thought was necessary. But it seemed as if they had overestimated the possibility of doing themselves what they were able to do, and the situation on the west coast is practically similar, in that in order to obtain the supply of Douglas fir that is necessary for our vessels it has been necessary to introduce an embargo there also.

The CHAIRMAN. When was this last schedule issued, Admiral?

Admiral BOWLES. The last schedule was issued November 1; the revised schedule for the wooden ships.

Senator CALDER. What will be the effect of all this, Admiral?

Admiral BOWLES. The effect of all this will be considerable delay in the completion of the wooden ships. It has been stated here at this table that the changes that I made in the wooden ships had decreased their carrying capacity by 700 tons, which, of course, is absurd. I imagine that the decrease in carrying capacity of the ships might possibly reach 80 or 90 or 100 tons, but no more.

Senator NELSON. In the whole lot?

Admiral BOWLES. In the whole lot; and it probably in the majority of vessels is not over 50 or 60 tons.

Senator NELSON. The delay, if any, then, Admiral, has occurred from the lack of timber?

Admiral BOWLES. Substantially the whole delay has occurred from the lack of material.

Senator JONES. Admiral, most of the complaints I have had from the Pacific coast with reference to wooden ships has been that they could not get contracts to build the ships. I handed a telegram to one of your men here this morning from the Wright Shipbuilding Co., of Tacoma. They have ways and an organization they say for the building of ships, but my recollection now is they say they have only been able to get contracts for two.

Admiral BOWLES. Senator, in the face of the information I have given you, we are already attempting to build more than there is possibility of producing. Why give more orders and simply delay the whole business further?

Senator JONES. I think possibly these men may know a little bit more about the supply available than you do, because I do not think they would want to start on the building of these ships unless they had the supply or knew where they could get it. That is what I do not understand.

Admiral BOWLES. I hope they will get into the steel-shipbuilding business.

Senator JONES. I would like to see steel ships built too, but if we are going to build wooden ships I think we ought to build them as fast as the yards available can build them.

Admiral BOWLES. Anybody who can show that he controls a supply or has the materials will get a contract at once.

Senator JONES. I do not know what the showing is these people make; I know it is a responsible firm and I hope the organization will look into their proposition right away.

The CHAIRMAN. This change in the specifications called for an additional supply of lumber?

Admiral BOWLES. About 100,000 feet for each ship.

There is another feature of the wooden shipbuilding that ought to be explained. There is a popular idea that the man effort that goes into the wooden vessel is not available for the construction of steel ships. Now, you ought to understand, on the proposition of the wooden ship, that a whole lot of the man effort that goes into it is the iron and steel strappings, the engines and boilers, the smoke pipe and hatches and uptake, and in my judgment 90 per cent of the man power that goes into the construction of wooden vessels is taken away from and is available for the construction of steel ships. The only element of the man power that goes into the construction of wooden vessels that is not available for steel ships are those wooden-ship builders who will only work when they can stay at home.

Senator HARDING. The disposition has been to place wooden-ship contracts, has it not?

Admiral BOWLES. It has.

Senator NELSON. The supply of ship carpenters is quite limited, is it not? I use the word "ship carpenter" in its technical sense. They are limited in this country; there is a very limited supply, is there not?

Admiral BOWLES. The supply of shipyard workers is very limited, and shipwrights especially.

I think in justice to myself I ought to be at liberty to state that I had nothing whatever to do with the placing of any wooden-ship contracts. I have one other thing, however, to confess with regard to wooden vessels, and that is that I did interfere and make changes in the design of the machinery for them.

Senator JONES. Admiral, I do not know whether you are contemplating a further answer.

Admiral BOWLES. I was going to say that I did change the design of the engines and made modifications in the boilers.

The CHAIRMAN. When did you make those?

Admiral BOWLES. I did that very soon after I came in. The plans of the engines and boilers were nearly ready to go to the contractors and the contracts had been placed, and I made from a month's to two months' delay in the completion of those things, because it seemed to me to be absolutely necessary that if we were going to build 400 vessels and 400 engines and some 800 boilers that they should be creditable as an American design in every way, and the changes were made for that purpose.

The CHAIRMAN. Could you give us the changes and the reasons for them?

Admiral BOWLES. I could give you a long list of changes.

The CHAIRMAN. I mean simply in a general way.

Admiral BOWLES. The design and the reciprocating engine that was going into those vessels was inferior, and its principal defect was that it was unbalanced and would cause vibration, particularly detrimental to a wooden vessel. The crank shaft was a continuous crank shaft, and in a wooden vessel the danger of breaking a crank shaft is much greater than in any other vessel, and I thought it ought to be sectional, so that if it did break it could be easily replaced and spares more easily carried in store. There were many other detailed questions in regard to the arrangement of the valves which affected the economy of the engine. The engine we finally adopted is a far more economic engine for steam than the one that was planned.

The boiler—the changes were more or less ones of detail for permitting better construction and a less number of individual thicknesses of tubes and plates and one thing and another, and details which added to the safety of the boiler in use.

The CHAIRMAN. Were there any changes in the contractors?

Admiral BOWLES. There was no change in the contractors that I know of.

The CHAIRMAN. Who are the contractors?

Admiral BOWLES. There is a large number. Mr. Brown can furnish you a list of the contractors for the engines and boilers. They extend all over the country.

The CHAIRMAN. Will the engines and boilers be ready by the time the hulls are ready?

Admiral BOWLES. I think they will.

The CHAIRMAN. So there will be no delay, you mean to say, in the completion of the vessels by reason of the delay in the completion of the boilers and engines?

Admiral BOWLES. There might be one or two ships delayed, but on the whole there will be no delay at all.

The CHAIRMAN. Were there any other changes in the designs or specifications?

Admiral BOWLES. None, that I remember; except those that refer to the military requirements. Of course, these military requirements have arisen since the original design was prepared, and we have had to make quite a number of changes in the quarters and crew and arrangements for magazine and the mounting of guns and those things which necessarily had to be changed.

The CHAIRMAN. Would that involve delay to contractors or builders?

Admiral BOWLES. A little delay; yes; but those were all things that are in the final completion of the ship.

The CHAIRMAN. Were there any changes in the designs and plans and specifications of the steel ships?

Admiral BOWLES. There have been changes relating to these war zones and military requirements, and there have been changes in regard to visibility; that is, we have cut down the smoke pipes and taken down the masts and made the derricks portable, and such things as that, that is all.

The CHAIRMAN. Do you know of any instances where contracts have been let and the construction of the ship begun, when contractors were advised that it was determined to give a different shape to portions of the structure?

Admiral BOWLES. Yes; I know of one such case.

The CHAIRMAN. That did not apply generally?

Admiral BOWLES. Well, I know that case very well. I can tell you all about it.

The CHAIRMAN. There were no permanent changes of the design and specifications as to the steel ships made after they were originally promulgated?

Admiral BOWLES. I do not think of any. But I know this particular case; I can tell you why that was.

Senator HARDING. Let us have it.

Admiral BOWLES. This was a case of Merill-Stevens. They were under contract to build a vessel which was to be paid for by the dead-

weight ton; and she was also to make a certain speed; but, as I remember it, there was no penalty on the speed. The specifications required that the lines should be approved by us. Now, they went ahead with their work without submitting those lines at a proper time, and when we did get them and tried the vessel in the model basin here in Washington, we found that the speed was going to be very deficient and that they had filled that ship out in order to give more dead-weight tons in her, and therefore get more money, in a way that would have nearly ruined the ship, and I, of course, gave orders to change it. And then they complained that I was making delay, and I told them that there would be no delay if they got busy and accepted my decision, which was certainly absolutely right, and I have not heard from them since. They made the changes.

The CHAIRMAN. I do not think it is quite just to say that they were doing this in order to increase the dead-weight tonnage and so get more money out of the Government, and were not trying to build a proper ship. I rather think you are assigning motives to them that are not quite just.

Admiral BOWLES. If so, I am very sorry; but that is what showed on the face of the returns.

The CHAIRMAN. They were building according to some plan, were they not?

Admiral BOWLES. They were building according to a general plan, but this was one of the things that they had to develop for themselves, the actual line.

The CHAIRMAN. That is an old established yard, and they have had a good deal of experience before. I know these people as honorable, capable contractors.

I did not bring that matter up because of any complaint by them, I was simply asking for information as to whether or not there had been changes. You mentioned changes as to the wooden ships, and I wanted to inquire as to the steel ships.

Admiral BOWLES. Now, Mr. Chairman. I have been authorized by the chairman of the Shipping Board to tell you what is being done in regard to housing.

Senator JONES. One moment before you go into that. As I understood, you suggested awhile ago that in a locality where steel-ship construction was possible—that is, the further development of it possible—you would discourage wooden-ship building. Was that a correct understanding of what you said?

Admiral BOWLES. No; that was not the way I put it.

Senator JONES. Well, I will ask you whether or not you think it wise from a governmental standpoint, in a locality where further steel-ship development is possible, to hold back or prevent wooden-ship building in order to encourage steel-ship building?

Admiral BOWLES. I do.

Senator JONES. And that would be a policy you think wise from the governmental standpoint in the present condition of things?

Admiral BOWLES. Absolutely.

Senator JONES. And if you have the say that will be the policy that will be followed?

Admiral BOWLES. If I had the say it would.

Senator HARDING. Before you go into the housing question you have a good deal to do with the type of ship to be erected, I take it?

Admiral BOWLES. The technical department in which the designs are prepared comes under me, and I have influenced the designs in many ways.

Senator HARDING. I want to ask you, have you ever given any consideration to a proposition to build the cast-iron steel ship?

Admiral BOWLES. I gave very brief consideration to it.

Senator HARDING. Did you think it utterly unworthy?

Admiral BOWLES. I did not think it practicable.

Senator HARDING. Have you not already established the system of electric welding and putting these parts together in a manner to prove effective?

Admiral BOWLES. Not at present. There are experiments going on in this country to-day for the development of spot riveting—that is, of securing plates together without rivets by means of electric welding. There are also experiments going on in regard to butt welding, which is welding butts together instead of riveting them with butt straps. Both of those things, if they could be accomplished, would be of enormous assistance in the construction of ships. But so far they are in an experimental stage. I have been in consultation with the people who are carrying on those experiments quite recently.

Senator HARDING. Well, this proposition came to the Emergency Fleet way last spring, did it not?

Admiral BOWLES. It did.

Senator HARDING. And you think it unworthy?

Admiral BOWLES. In the shape I saw it, it was unworthy then. I understand that some developments have been made in the design, and I believe yesterday I promised somebody to go over it again. I saw it first some time in September.

Senator HARDING. But it has had no serious attention up to this time?

Admiral BOWLES. I think not.

Senator HARDING. It would, if practical, effect a very great saving in construction, would it not?

Admiral BOWLES. Well, whether this development of the electric welding would make greater speed when used in connection with cast steel than when used with wrought steel I have very serious doubts; that is, if the electric welding was possible, and thereby make the cast-steel ship a possibility, whether it would be superior to the other ship I have very grave doubts.

Senator HARDING. You are going into that again now, you say?

Admiral BOWLES. I did promise to do so.

Senator HARDING. Let me ask you another question. Do you know anything about a proposition to build steel ships on the part of the Texas Steel Co.?

Admiral BOWLES. Not the Texas Steel Co.; the Texas Steamship Co., I do.

Senator HARDING. Perhaps I have the name wrong. Why were they never given any consideration?

Admiral BOWLES. I think from what you say it is some other company that I do not know. I do not know the Texas Steel

Co.; I only remember something that might have that name that was connected with the production of steel. Is that it?

Senator HARDING. Well, they claim to be not only producers of steel and all that, but they thought to go into the shipbuilding business, and claimed to have proposed to the Government to build ships at $140 a deadweight ton.

Admiral BOWLES. Yes; so they did. It was a wild idea of getting the Government to advance sufficient money to develop an ore supply, to construct blast furnaces and the rolling mills——

Senator HARDING. Oh, it was entirely a dream from the beginning, you mean?

Admiral BOWLES. Well, it looks like one to me, because it seemed to me that for us, who were engaged in producing things in an emergency, it was not of a character that we ought to give attention to.

Senator HARDING. They had no plant of any kind?

Admiral BOWLES. Absolutely nothing but a scheme.

Senator HARDING. You need not answer any further.

Senator NELSON. Did they not even have the ore lands? Did they have iron mines?

Admiral BOWLES. They had a very poor quality of ore supply under some sort of option or other. As far as I could make out they had nothing at all.

Senator NELSON. If you should adopt their scheme, I would expect you to come to Minnesota, because we have good iron mines.

Admiral BOWLES. This scheme came to me indirectly. They had been before the Council of National Defense, who had rejected it, and it was sent to me, I think by Mr. Hurley, to prepare a letter.

The CHAIRMAN. They claim to have the ore and the facilities and to be able to manufacture their own steel and build the ships.

Admiral BOWLES. All of which they would do if we supplied the money.

Senator JONES. Have you the letter? I suppose every member of the committee has a letter in reference to the matter from an attorney in this town.

The CHAIRMAN. I had a letter, yes; and I thought I had it here. The first contracts let were for wooden ships?

Admiral BOWLES. I believe they were.

The CHAIRMAN. And then later you began letting contracts for steel ships. Have you had any delays on account of inadequate material for the steel ships?

Admiral BOWLES. Yes; we have had some slight delay.

The CHAIRMAN. And the same way as to the composite ships?

Admiral BOWLES. The composite ships, as far as I know, we have had no delay with.

The CHAIRMAN. What do you think of the composite ships?

Admiral BOWLES. Well, I think anybody that can build a composite ship can build a steel one, and therefore I urge any builder that promises a vessel to take up steel construction. I think the situation with regard to the construction of various types of ships ought to be thoroughly understood. What we are trying to do is to put upon the ocean as quickly as possible the greatest amount of

tonnage. Now, the experience we already have shows that it actually takes more time to construct a wooden vessel, a wooden steamer, than it does to construct a steel vessel, of very much larger capacity. And therefore it is not good policy to construct a wooden vessel, except in places where the supply of material and labor adapt itself only to that purpose.

The CHAIRMAN. What yards or builders have complained about the lack of supply of steel delaying their work?

Admiral BOWLES. The Union Iron Works complain; the Great Lakes Engineering Co.; the American Shipbuilding Co.; the Downey Shipbuilding Co., in New York. I have a list of them, but I do not remember any more at this moment. What we are doing at the present time is having a report made every week from every shipyard, as to what they receive in the way of steel, what they need and what their production requires, in order that we may distribute the supply of steel.

The CHAIRMAN. Do you apprehend that you will be able to increase the supply of steel in order to meet the requirements, or will those delays necessarily continue?

Admiral BOWLES. I think those delays have now all been met; but of course there is a limit beyond which we can not go at present in the construction of vessels by the steel capacity of the United States.

The CHAIRMAN. Will you not likely have the same trouble with steel that you had with timber?

Admiral BOWLES. I can explain to you how that limit is if you would like to have me.

The CHAIRMAN. Yes.

Admiral BOWLES. And this I do through information that has been furnished to me by our general purchasing agent. The total capacity of ship plates during the year 1918 will be approximately 2,684,000 tons. Now, the portion of that which is available for ship plates on our present designs is about 1,790,000 tons. After we deduct from that what the Navy will require it is estimated that the balance, if it were all given to shipbuilding, would enable us to produce in one year about 7,100,000 tons. So that the maximum production of steel ships in the United States in 1918, if all the available supply of plates were directed to that purpose, would be 7,100,000 tons.

The CHAIRMAN. So it would seem that the capacity then would supply your needs.

Admiral BOWLES. At present, yes.

The CHAIRMAN. At present, yes.

Admiral BOWLES. Of course at the present time a very large proportion of plates which are available for shipbuilding is going into the construction of buildings and cars and various commercial activities, so that——

Senator NELSON. Have you taken any steps to commandeer the steel industries with respect to this?

Admiral BOWLES. So far we have only had to threaten.

Senator NELSON. And have they responded to threats?

Admiral BOWLES. They have.

The CHAIRMAN. Do you know how many ways the Merchant Ship Company has?

Admiral BOWLES. Nine.

The CHAIRMAN. And how many do they propose to build?

Admiral BOWLES. They have a contract for 40 ships.

The CHAIRMAN. They need about 20 ways, then?

Admiral BOWLES. Well, I don't remember how many ways they are to have.

The CHAIRMAN. And the Submarine Boat Company?

Admiral BOWLES. The Submarine Boat Company are to have about 28 ways, and they have a contract for 150 ships.

Senator NELSON. I spoke to you a while ago asking you to explain something of a certain class of ship you were furnishing. Do you remember?

Admiral BOWLES. Yes; I would be glad to explain the difference between the fabricated vessels and the vessels of ordinary construction. In the ordinary construction of vessels the plates and shapes are delivered in the shipyard as they come from the mill. The vessel having been laid down in the mold loft the templates are made and the frames of the vessel are bent and adjusted to these templates and so prepared for erection on the building slip. The plates of the vessel are templated in the mold loft and are then sheared in the shops; their edges and butts planed and the rivet holes laid off from the actual template and punched under the individual punching machine in the shipyard and then erected, placed and riveted. Now, in the fabricated ship the design has been made to eliminate curvature wherever possible; that is, throughout the length of the ship a uniform section is maintained as long as possible. The sides of the ship are substantially flat, the bottom is flat, the curvature on the bilge is made as short as possible.

The ship has no shear; that is, she does not rise forward and aft; the deck has no crown, it is flat. By this means it is possible after the ship is laid down in the mold loft to take the templates to structural shops accustomed to fabricating steel for the construction of buildings or bridges, and there to punch all the rivet holes in the plates and shapes, and to template them in portions that are as large as can be transported by a railway car, all riveted together. So that when this material comes to the shipyard it comes in pieces that are ready to be installed in the ship and only require riveting where connections are made to the adjoining piece. By this means there is utilized the skill of the workers in the fabricating shops of the bridge builders and their machinery, and thereby an additional class of labor can be employed, and the structure of the ship is simplified and the speed of construction should be materially increased. Now, this process of fabricating ships is one that has gradually grown and developed in the minds of the people of this country for four or five years. I do not know that anyone can claim to be its originator, but many people have been thinking of it, and when this emergency arose it offered the opportunity to put it in practice, and so far as I know there are no fabricated ships building anywhere except those in the United States. I am certain that there are none building in Great Britain.

Senator NELSON. Do you regard them to be as substantially built in that way as when built in the old way?

Admiral BOWLES. I do; and I regard these fabricating processes in these contracts as the great, inspiring thing of the program that we have undertaken. That is a general view of the layout of the Newark Shipyard of the Submarine Boat Corporation (exhibiting photograph), where they are undertaking to build 150 vessels.

The CHAIRMAN. If there is nothing further at this time, the committee will now adjourn.

(Thereupon at 12.55 o'clock p. m. the committee adjourned to meet at 2 o'clock p. m. to-morrow, Friday, December 28, 1917.

UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.

FRIDAY, DECEMBER 28, 1917.

UNITED STATES SENATE,
COMMITTEE ON COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 2 o'clock p. m., in the committee room, Capitol, Senator Duncan U. Fletcher presiding.

Present: Senators Fletcher (chairman), Martin, Bankhead, Kirby, Nelson, Jones, Sherman, Harding, and Johnson.

The CHAIRMAN. I have here a communication from the chairman of the Shipping Board in response to a portion of question No. 1 of the questions submitted by the committee, which was suggested by Senator Jones; and I think the communication can go in the record at this point [handing letter to Senator Jones].

Senator JONES. I think it ought to go in, Mr. Chairman, but I have not had an opportunity to examine it to see whether it fully answers the question.

The CHAIRMAN. Well, it can go in at this time for whatever information it contains and we can examine it later.

(The communication referred to is here printed in full, as follows:)

UNITED STATES SHIPPING BOARD,
Washington, December 26, 1917.

Hon. DUNCAN U. FLETCHER,
Chairman Committee on Commerce,
United States Senate, Washington, D. C.

MY DEAR SENATOR: Responding to that portion of question No. 1, submitted by the committee and suggested by Senator Jones, regarding the organization of shipyards, I have the honor to advise you that from the information compiled in the division of shipyard plants of the Emergency Fleet Corporation, there are at the present time a total of 113 shipyard plants that will handle 146 contracts and execute to date. This number consists of old yards, old yards expanded on account of new contracts for the Emergency Fleet Corporation, and new yards constructed since the organization of the Emergency Fleet Corporation.

The total is made up as follows: 23 old yards, 16 old yards expanded on account of Emergency Fleet Corporation contracts, 74 new yards.

The following new shipyard plants have been and are expected to be assisted by the Emergency Fleet Corporation funds:

Contract No.	Name.	Contract No.	Name.
	Steel vessel plants.		*Steel vessel plants*—Continued.
26	Baltimore Dry-dock & Shipbuilding Co.	99	Bayles Shipyard (Inc.).
30	Dewney Shipbuilding Co.	101-140	American Shipbuilding Co. (6 plants).
91	Nowburg Shipyards (Inc.).	141	Southern Shipbuilding Corporation.
92	Los Angeles Shipbuilding & Dry-dock Co.	142	Pacific Construction Shipbuilding Co.
		144	Pensacola Shipbuilding Co.
97	Oscar Daniels Co.	146	The Atlantic Corporation.

Con ta No.	Name.	Contract No.	Name.
	Fabricating plants.		*Wood vessel plants*—Continued.
83	American International Corporation.	24	American Shipbuilding Co., Brunswick, Ga.
86	Submarine Boat Corporation.	27	Tampa Dry-dock Co.
87	Merchant Shipbuilding Corporation.	28	Union Bridge & Construction Co.
	Composite plants.	29	Jahncke Shipbuilding Co.
		34	Grant Smith-Porter-Guthrie Co.
31	Supple & Ballin.	40	Do.
44	Kelly-Atkinson Construction Co.	43	Potomac Shipbuilding Co.
		45	J. N. McCammon.
	Wood vessel plants.	47	Alabama Dry-dock & Shipbuilding Co.
		53	J. M. Murdock.
5	Peninsula Shipbuilding Co.	54	Midland Bridge Co.
11	Sanderson & Porter.	55	United States Maritime Corporation.
12	Maryland Shipbuilding Co.	60	J. H. Mendell Engineering & Construction Co.
14	The Foundation Co.		
22	Newcomb Lifeboat Co.	73	Housatonic Shipbuilding Co.
23	Traylor Shipbuilding Co.		

NOTE.—The six plants of the American Shipbuilding Co. have been included in the above as a 10 per cent cash payment on signing of the contracts.

The following is a statement prepared by the auditing division showing the names of the shipyards which have been given financial assistance by the Emergency Fleet Corporation to date, according to districts:

District.		Plant and property.
No. 1.	Sandy Point Shipbuilding Co	$25,000.00
	L. H. Shattuck (Inc.)	305,740.23
No. 2.	Foundation Co	579,085.26
	Housatonic Shipbuilding Co	167,227.02
	Traylor Engineering & Machinery Co	588,282.43
No. 3.	Maryland Shipbuilding Co	46,123.24
	Potomac Shipbuilding Co	166,037.04
No. 4.	American Shipbuilding Co	24,000.00
	Hillyer, Sperring Dunn Co	57,577.14
	J. M. Murdock	63,434.85
	Tampa Dock Co	18,000.00
No. 5.	Alabama Dry Dock & Shipbuilding Co	54,777.46
	Jahncke Shipbuilding Co	291,350.83
No. 6.	Midland Bridge Co	132,191.01
	Union Bridge & Construction Co	183,944.13
No. 8.	Grant, Smith, Porter, Guthrie Co., St. Johns, Oreg	344,952.48
	Grant, Smith, Porter, Guthrie Co., Aberdeen, Wash	32,567.28
	Sanderson & Porter	345,427.96
Fabricated—Shipyards:		
	American International Shipbuilding Co	3,347,706.27
	Merchant's Shipbuilding Co	1,870,367.84
	Submarine Boat Corporation	894,907.81
	Total all districts	9,538,686.28

Respectfully submitted.

EDWARD N. HURLEY,
Chairman.

The CHAIRMAN (continuing). We will now go on with Admiral Bowles; but before we go into executive session I should like to make a few inquiries.

In the newspapers, commenting on the hearing of yesterday, Admiral Bowles, there are such headings as these: "Wooden fleet flat failure;" "Wooden-ship program is failure." Did you mean to go as far as that in the views you expressed on that subject

Admiral BOWLES. Well, I was sorry to see those headings, Mr. Chairman, and I considered them an entire misconception of the statements that I made.

The CHAIRMAN. I did not think you meant to give that impression

Admiral BOWLES. I explained pretty thoroughly the limitations of the wooden-ship building program and the difficulties of it and the possible reduction of wooden vessels, but so far as I am aware I expressed no opinion on the merits of a controversy which I think it unnecessary to revive.

The CHAIRMAN. Well, Admiral, will you state concretely and as briefly as you can what criticism you have to offer as to the wooden-ship program?

Admiral BOWLES. Well, Mr. Chairman, that is rather a long story, and would it not be sufficient if I put the answer in a constructive way as to what part I think the wooden-ship program should play in this emergency——

The CHAIRMAN. Do just as you like about that.

Admiral BOWLES. And what part it can efficiently play?

My feeling, of course, is that we are dealing with an emergency in which any vessel capable of ocean service which can be produced should be produced, and that speed and rapidity of construction is of the first importance, and that the usual standards of what is most economical or what is most efficient should, in large measure, give way to the feature of emergency and the greatest possible production of tonnage within a limited time.

As to the best solution of that problem, my feeling is that it will best be solved and the emergency be met most quickly by the largest effort being put into the construction of steel vessels, and that the wooden vessels should be built only in such places and in such numbers where the production of tonnage can be increased most rapidly by that means.

Now, while that answer is not as definite as I would like to make it, I think it is fair for me to state that the inference from it is that we have attempted to produce, within a limited time and under very unusual conditions, more wooden tonnage than we should have attempted, and that having done so, it will somewhat retard the maximum production of tonnage over a limited period.

It will, however, have some advantage in having directed a great many people toward the building of shipyards who probably would not otherwise have done so; and I believe that the minds of those people are now rapidly turning toward the construction of steel vessels; and the fact that they are educating themselves and their men upon the production of these vessels will serve a good purpose in the future, by bringing about a greater production of steel vessels.

That seems to me to be a complete answer to your question, Mr. Chairman. When you have your executive session of the committee, I shall show you that there is a probability of a very large item in our tonnage consisting of wooden vessels.

The CHAIRMAN. Are we to understand that, if you had the matter to go over again, your view would be that you would not have had as many contracts for wooden vessels as were let?

Admiral BOWLES. That is true.

The CHAIRMAN. And that would mean that, in your judgment, by limiting the contracts and the quantity of output of ships, you would have had completed ships more quickly, although you might not have as many as you would have had if you had let more contracts?

Admiral BOWLES. Precisely.

The CHAIRMAN. That was the impression I had from your discussion of the subject yesterday. And that conclusion is, perhaps, based on the fact that there has been a difficulty in getting an adequate supply of material. And there is also a lack of material as to the steel ships; would you in like manner limit the number of contracts for steel ships?

Admiral BOWLES. There is an absolute limit on the production of steel vessels in the United States, and it would be folly to let steel contracts in excess of the possible production.

The CHAIRMAN. You are still, however, open to letting contracts both for wood and for steel ships, I presume, with reference to contracts for future deliveries. May I ask if you have adopted any time within which you specify that vessels shall be completed? How far ahead are you willing to make contracts for deliveries?

Admiral BOWLES. Well, I think, Mr. Chairman, that I would prefer not to answer that in open session; it is an important feature in dealing with our war situation. But I shall be very glad to answer it in executive session.

The CHAIRMAN. Very well, we will pass that for the present. The question just occurred to me, and I did not want it overlooked altogether.

STATEMENT OF ADMIRAL F. T. BOWLES, MANAGER DIVISION OF STEEL-SHIP CONSTRUCTION, UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION—Resumed.

In looking over the recommendations of Mr. Charles M. Englis to the Fleet Corporation, I find that one of them, for example, is as follows [reading]:

> A futtock on the amidships frame can not be molded under 28 to 30 inches in width, allowing 16 inches as the width of the frame. I would suggest that a latitude be given whereby if the futtock has at least 8 inches on each end of the crook of solid wood that this difficulty may be avoided. The material could then be molded from 26 to 28 inch material, whereas at the present time it takes from 28 to 30 inches.

Did you act on that recommendation at all?

Admiral BOWLES. I do not think any general instructions were issued on it. I considered it a matter of detail which any shipbuilder could deal with; and my whole object in sending Mr. Englis to visit the yards on the coast was that, being a very experienced man, he would give good advice in regard to details.

The CHAIRMAN. It would make a difference, however, in getting material, whether the mill had to furnish 28 by 30 inch instead of 26 by 28 inch material, would it not?

Admiral BOWLES. Yes; it would make a material difference. But we are now getting pretty much all of those futtocks from the cypress mills, and they are having no difficulty in producing them. It is, however, practically impossible to get them of the width that we require in yellow pine.

The CHAIRMAN. Now, let me understand, Admiral, if I can, what the Government is investing in the plant at Hog Island, to be operated through the agency of the American International Corporation.

Admiral BOWLES. The estimated cost of the shipyard is $27,000,000.

The CHAIRMAN. Then, what is the investment at the plant that the Merchants Shipbuilding Co. is to operate?

Admiral BOWLES. The plant of the Merchants Co.—at the present time the estimate is $6,700,000.

The CHAIRMAN. And that is located where?

Admiral BOWLES. That is at Bristol, Pa.

The CHAIRMAN. The Merchants Co.'s plant is at Bristol, and the American International plant is at what place?

Admiral BOWLES. The American International plant is at Hog Island.

The CHAIRMAN. What are the figures as to the plant of the Submarine Boat Co.?

Admiral BOWLES. The Submarine Boat Co.—their present estimated cost is $8,636,000. None of these figures that I have given includes housing facilities, which will probably have to be added; in fact, I know they will have to be added in two of them.

The CHAIRMAN. Have you any idea what that will cost?

Admiral BOWLES. I think that the estimate for the housing facilities for the Merchants Co. is $6,000,000; but in all probability it will not be necessary to expend half of that. The amount to be expended at the American International plant at Hog Island is $10,000,000.

The CHAIRMAN. And the housing facilities for the Submarine Co.?

Admiral BOWLES. The Submarine has not called for any housing as yet.

The CHAIRMAN. The figures you have just given would mean a total investment exceeding $58,000,000; and that entire investment would be in plants within a radius of 100 miles, would it not?

Admiral BOWLES. Yes; the two places—the Bristol and the Hog Island places—are within 50 miles of each other.

The CHAIRMAN. From the standpoint of emergency, not with reference to any general policy, but in view of the fact that private yards have all the work they can do and if they are in need of any work the Government would be ready to give it to them, do you not believe that the Government could have undertaken the construction of these ships in a yard of its own, costing less than this $57,000,000, at an immense saving in the cost of the ships and also in the speed of the work?

Admiral BOWLES. When you speak of the Government, Senator, I presume you speak of the Emergency Fleet Corporation?

The CHAIRMAN. Precisely.

Admiral BOWLES. And I would answer decidedly not. I don't think that, with the people we have available and with their experience, we could expect to do in such short time what these organizations that have been brought together for this purpose can accomplish. I feel that we are deliberately expending a great deal of money in these plans for the purposes of dispatch, expedition—the completion of these vessels. Now, that may be looked upon as waste or extravagance; but it is a necessary element of haste.

Senator NELSON. Right there, may I interrupt you? Has this big shipbuilding company at Hog Island laid the keel of any ship yet?

Admiral BOWLES. No.

Senator NELSON. Then, where does the expediting come in in that case; when do you expect to get a ship from that yard?

Admiral BOWLES. Starting with an open field, within the last 10 weeks they have organized a force of 17,000 men for the building of their shipyard.

Senator JOHNSON. Which company, please?

Admiral BOWLES. The American International at Hog Island. The Submarine Boat Co. has laid a keel.

Senator NELSON. That is an existing company?

Admiral BOWLES. No; this is one of these fabricating companies.

Senator NELSON. I mean were these companies formed especially for the purpose of taking those contracts?

Admiral BOWLES. The Submarine Boat Corporation had no shipyard. They had a great many people in their employ who had had experience in connection with vessels; but no shipyard.

The CHAIRMAN. How about the Merchants?

Admiral BOWLES. The Merchants' people had been the first to attempt the construction of fabricated ships in their Chester shipyard; and the conception of the organizing of that yard for this purpose originated there.

The CHAIRMAN. Now, I understood yesterday, Admiral, in answer to a question from Senator Johnson, that the American International was to get approximately $6,000,000 for its work in the building of these ships at Hog Island, and that the consideration for that was their organization and the "know-how," as you expressed it. Now, it developed a little that their organization was that of the New York Shipbuilding Co., and that they had already all the work they could do and, consequently, all that force was needed at that plant in New Jersey. Consequently, about all that is being furnished by the International Co. at Hog Island is the "know-how," and what is in my mind is, How can they be superior to you in supplying the "know-how?" You will not concede that they know better how to build ships than you do?

Admiral BOWLES. Perhaps I did not make it clear, Senator. The portion of the "know-how" that is furnished by the New York Shipbuilding Co. is a very small portion of the work of this International Co. That portion is, in fact, along the lines of the engineering of the vessels themselves and the drafting work of the plans of the vessels. Now, the part that the organization of the American International is doing at this moment, of course, is wholly in the construction of the shipyard, which is a problem entirely apart from the construction of the ships themselves after the layout is once made.

Senator NELSON. May I interrupt you there? When do you expect to have that shipyard completed, so that they can start building ships?

Admiral BOWLES. I should think that the shipbuilding there will not become what you might call active and under good headway until May or June.

Senator JOHNSON. Admiral, who furnished or approved the plans for the construction of the shipyard? I am not speaking individu-

ally, but the men—was it from your corporation or was it from the shipyard, or was it from the private corporation?

Admiral BOWLES. They presented a general layout of the shipyard.

Senator JOHNSON. But before they commenced construction it had to be approved, did it not, by you or by your particular board?

Admiral BOWLES. I think it did.

Senator JOHNSON. So that there could be no construction of a shipyard by the International Co. without first the approval of the Government, as it were, getting through?

Admiral BOWLES. Yes; that is true.

The CHAIRMAN. Do you have inspectors on the work all the time to see that it is done right?

Admiral BOWLES. Yes; we have a complete force of inspectors and auditors.

The CHAIRMAN. And in the case of all these ships that are building you have inspectors?

Admiral BOWLES. On every contract.

The CHAIRMAN. So that the Government is actually doing a very considerable part of that work, in addition to furnishing all the money?

Admiral BOWLES. The shipbuilders do not think so.

The CHAIRMAN. Do you not think that if the Government had undertaken this work the Merchant Fleet Corporation is doing you would have had less difficulty about labor—you would have been able to get a force and use the same force that you now use in supervising, etc.; and, if necessary, men could have been recruited for that service, could they not?

Admiral BOWLES. Well, supposing we had the job to do, and supposing I had to create this shipyard for the Government; I would have gone to one of these great organizations to build that plant; I would have divided it up among these people, and those people that were capable of doing the individual parts; I would not have attempted to have employed the individual men and appointed the necessary superintendents and have taken charge of that work myself—that would have been absurd. I should have employed every agency that was capable of doing a portion of the work in the United States to accomplish it in the least possible time. That is what we employed these people to do.

Senator JOHNSON. When was it that they got together their organization, if you please?

Admiral BOWLES. They started a long time prior to the signing of the contract, Senator. I could not say exactly when.

Senator JOHNSON. And the contract was signed approximately when?

Admiral BOWLES. About the 13th of September. They submitted to us their first list of salaried executive force on November 23, and I was going to explain, in answer to your request, that I was unable to supply the complete list to-day because since this list was approved on November 23 they have applied for a considerable number of additions to it, and those additions have not been passed upon. I learned yesterday that a complete list would be before us next Monday, and after we have had an opportunity to go over it it will be submitted to you complete.

Senator JOHNSON. They got together their organization, however, in contemplation of these contracts, for the very work we are talking about, did they not?

Admiral BOWLES. Exactly.

Senator JOHNSON. They had no such organization prior to the time you began to negotiate with them that would have enabled them to carry out the contract, had they?

Admiral BOWLES. They had through Stone and Webster a very large number of people under their employment who have been engaged upon similar work.

Senator JOHNSON. Where? Where did Stone and Webster have these people under their employ on similar work?

Admiral BOWLES. I only remember at this moment that they built one of the cantonments. I could not begin to give you a list of their activities, but they have been engaged in work for public-service corporations throughout the United States, power equipment, and that sort of thing.

Senator JOHNSON. The point was this—and it is not in any criticism at all. The point is that the companies were formed for the purpose of doing this specific work; that is correct, is it not?

Admiral BOWLES. Yes, sir.

Senator JOHNSON. The thought has occurred, as suggested by the chairman, that possibly that organization might be gotten together by you people instead of by the private corporation. I take it, Mr. Chairman, that that was the idea in your mind, was it?

The CHAIRMAN. It was; yes.

Senator JOHNSON. Yes. Now, when these organizations were gotten together by the International Co. and only within the past three months, as I understand——

Admiral BOWLES. Yes.

Senator JOHNSON. Then they began to work upon certain plans that had to be approved by you before they could undertake any work in the construction of the yards?

Admiral BOWLES. Yes, sir.

Senator JOHNSON. Now, with your plans, then they began to construct a United States Shipyard, as it were, did they not?

Admiral BOWLES. Well, they made those plans themselves after consultation with us.

Senator JOHNSON. That is, they submitted plans to you, but the plans had to conform to your ideas?

Admiral BOWLES. Yes.

Senator JOHNSON. They commenced this construction in the fashion indicated, wholly paid for by you?

Admiral BOWLES. Yes.

Senator JOHNSON. They employed men in their organization wholly paid for by you?

Admiral BOWLES. Yes.

Senator JOHNSON. They are constructing ships under the plans and specifications that have been accorded them by you, all of the labor of which is paid for by you?

Admiral BOWLES. Yes.

Senator JOHNSON. They are constructing from materials furnished substantially by the Government, are they not?

Admiral BOWLES. In large measure.

Senator JOHNSON. Let us take, for instance, the steel that is used in the construction of these ships. How is that ordered?

Admiral BOWLES. The proposition is this: They contract with various fabricating companies for the fabrication of the steelwork. Those fabricating companies prepare their own schedules of material. Those orders are placed by our purchasing agent with the mills.

Senator JOHNSON. So that, in fact, you pay for and you furnish the material in the fashion you indicate?

Admiral BOWLES. We pay for it through them. That is, they are responsible for the receipt of the material and for the presentation of the bills to us. Our part of it is the allotment and distribution of the orders in order to secure delivery.

Senator JOHNSON. Now, prior to the time that you commenced construction upon the particular land, was any shipyard there constructed at all?

Admiral BOWLES. I believe not; but I have nothing whatever to do with that.

Senator JOHNSON. Can you tell me what proportion of wooden ships you contracted for prior to the 1st day of August and what subsequently? I mean only approximately, not exactly.

Admiral BOWLES. I should say that four-fifths of them were prior to that time.

Senator JOHNSON. Four-fifths were prior to the 1st day of August?

Admiral BOWLES. Well, no; that is too many, perhaps. If I should say that they were contracted for or that we were committed to the contracts, I think four-fifths would be about correct.

Senator JOHNSON. And about one-fifth since that time?

Admiral BOWLES. Yes.

Senator JOHNSON. I was endeavoring to follow the questions that were asked by the chairman and your responses, because I was not here yesterday when that particular matter was brought out. Do I correctly understand you to say that the wooden-ship program is one that you would not have entered upon originally if you had the choice?

Admiral BOWLES. I said not to such a great extent.

Senator JOHNSON. But you would have entered upon it to some extent?

Admiral BOWLES. Yes.

Senator JOHNSON. Now, take the western shipyards that are devoted to the building of wooden ships; you would let them continue in that, would you not?

Admiral BOWLES. I certainly should.

Senator JOHNSON. And contract with them in the future just as in the past?

Admiral BOWLES. Provided that it was not interfering with other work.

Senator JOHNSON. That is, the construction of steel ships?

Admiral BOWLES. Yes.

Senator JOHNSON. The precedence would be given by you to the construction of steel ships, as I understand?

Admiral BOWLES. Absolutely.

Senator JOHNSON. But by no means would you neglect the opportunity to build wooden ships?

Admiral BOWLES. I would not.

Nobody has asked me what my duties were in the Fleet Corporation, and I would be glad of an opportunity to state.

Senator JOHNSON. Will you state, please, Admiral, what your duties are in the Fleet Corporation? That will give you the opportunity.

Senator NELSON. I think from your qualifications, Admiral, you are too modest. You ought to perform the duties that Gen. Goethals and Admiral Capps performed.

Admiral BOWLES. I came into the Fleet Corporation as an assistant to Admiral Capps, and he assigned me as manager of the division of construction. The division of construction took up the contracts after they had been executed, and dealt with all the questions arising under the contracts. Now, for that purpose this division of construction was organized into a technical department, with a naval architect and consulting engineer at its head, and with draftsmen, both hull and machinery; there was also a commandeering department, which had charge of everything relating to the requisitioned vessels building in the private yards. Also a department called inspection and production, which had cognizance of everything relating to the inspection of vessels building, and when this division was organized it included both steel and wooden vessels. In addition to that, there was a department organized called that of industrial service, which I conceived to be a constructive-labor job.

Senator NELSON. Let me interrupt you just there, Admiral. Was this distribution and organization effected after you became connected with the corporation?

Admiral BOWLES. It was.

Senator NELSON. There was nothing of the kind before that?

Admiral BOWLES. Nothing.

Senator NELSON. Nothing of the kind that you have referred to in your statement just made?

Admiral BOWLES. No.

Senator NELSON. This was all established, these branches of work, and this distribution of work, after you came in?

Admiral BOWLES. Well, I will not say that there was nothing of it; there was some techincal department, for instance, there was something there. There was a technical department consisting of engine draftsmen, and the naval architect had his office in New York. Now, that was the only portion existing of what I have told you about.

Senator NELSON. Of this system you spoke about?

Admiral BOWLES. Yes.

The CHAIRMAN. Is it necessary to have all those departments, bureaus?

Admiral BOWLES. Absolutely essential.

Senator NELSON. Please repeat them again, briefly.

Admiral BOWLES. The technical department, the department of inspection and production, the commandeering department, the industrial service department. I would like to explain the industrial service department.

Senator NELSON. That relates to labor, does it not?

Admiral BOWLES. Yes; but I did not call it that. I think I ought to explain that I had no authority except what was lent to me by the general manager. I followed what policy was laid down by him, and

in most of the important parts of my work, where I bound the Government in money or obligation, it was my duty to prepare matters for the action of the general manager.

Now, I want to lay stress upon the fact that when the contracts came to me for administration they had been executed and made, and I have never been called upon for my advice with regard to the making of contracts until quite recently.

Senator NELSON. So that until quite recently you had nothing to do with the question as to whether it was a proper contract to make or not?

Admiral BOWLES. No.

Senator NELSON. You are not consulted about that?

Admiral BOWLES. The only part I took in the making of contracts was to prepare a program of what ships should be built. I did on the 6th of October give the general manager what seemed to me a complete program of the vessels that we ought to build.

Senator NELSON. But you were not consulted as to the scope or terms of the contract?

Admiral BOWLES. I was not.

Senator NELSON. Until after they were made?

Admiral BOWLES. I was not.

Senator NELSON. Who controlled that matter?

Admiral BOWLES. That was in the entire control of the general manager.

Senator HARDING. Is the committee to understand that there was no program adopted until the 6th of October?

Admiral BOWLES. It never has been adopted.

The CHAIRMAN. Since the 6th of October you have gone on making contracts, have you not?

Admiral BOWLES. Yes.

The CHAIRMAN. And closed contracts that were proposed after that date, or have you closed any that were proposed before that date?

Admiral BOWLES. The awarding of contracts has been a continuous performance since the Fleet Corporation was organized.

The CHAIRMAN. Have you applications for contracts that have been made since October 6?

Admiral BOWLES. Oh, yes; a great many.

The CHAIRMAN. Those contracts that were closed about December 23—how long had those applications been in, Admiral?

Admiral BOWLES. I could not say, Senator; I have no knowledge of that. But I would like to file with you some additional contracts made since my testimony began.

I stopped at No. 146 and now I am at 147, which is a contract for the construction of a concrete vessel, made with the Liberty Shipbuilding Co., of Boston, Mass., on the date of December 17.

Senator HARDING. That contract was for how many?

The CHAIRMAN. For how many and what tonnage?

Admiral BOWLES. That is 1 experimental vessel with 49 others obligated for under certain conditions, provided this vessel is satisfactory. That has not yet been settled.

Senator JONES. Is not the size of this experimental vessel settled?

Admiral BOWLES. No; it has yet to be agreed upon.

The next contract is No. 148, between the Grays Harbor Motor Ship Corporation, under date of the 28th of November——

The CHAIRMAN. Where are they located?

Admiral BOWLES. In the State of Washington. Am I correct, Senator?

Senator JONES. Grays Harbor is in Washington; yes.

Admiral BOWLES. This is for four wooden hulls. The next contract is No. 149.

Senator JONES. That means 3,500 tons?

Admiral BOWLES. Yes.

The next is with the Merrill-Stevens Co. and is for the construction of six fabricated steam vessels of 9,000 tons dead-weight.

Senator NELSON. Where are they located?

Admiral BOWLES. At Jacksonville, Fla.

Senator NELSON. Is there a shipyard there?

Admiral BOWLES. Yes, sir.

The CHAIRMAN. Have they not another place in Alabama or Louisiana?

Admiral BOWLES. At Slidell, La. The next contract is No. 150, made the 19th day of December, with the American Shipbuilding Co.

Senator NELSON. That is this Hog Island company?

Admiral BOWLES. No.

Senator HARDING. It is located on the Great Lakes, is it not?

Admiral BOWLES. This is a company organized in the State of Georgia.

The CHAIRMAN. That is Brunswick, Ga., I think.

Admiral BOWLES. It is for the construction of four wooden cargo vessels and the installation of the machinery. This next one without number should be No. 151. This is a contract with the New York Shipbuilding Co. and it provides for the construction of three troop ships. Two are in the place of two requisitioned vessels which we did not wish to complete and one is in the place of two stock ships which they had begun but which we did not wish to complete.

Senator NELSON. Now, when are those ships to be completed?

Admiral BOWLES. In one year.

The CHAIRMAN. The American Shipbuilding Co. is located at Savannah or New Brunswick?

Admiral BOWLES. At Brunswick, Ga.

The CHAIRMAN. The Merrill-Stevens Co., I think perhaps four of those were built at Jacksonville, and two at Slidell. Do you know how long these contracts have been pending?

Admiral BOWLES. I do not, sir. In regard to some questions, Senator, that were asked me yesterday, I want to say that the matter in regard to the Sloan contract was not quite finished. It required looking at the files, and the files will be here this afternoon.

Senator HARDING. Before we get away from it, let me ask you this: In answering Senator Johnson concerning the activities of the International, I think you stated that they only began their activities in October; is that correct?

Admiral BOWLES. Their contract was signed the 13th of September and they got very busy immediately.

Senator HARDING. What I wanted to ask you was this: Would the International have begun their activities earlier if their contract had been arranged?

Admiral BOWLES. I think so.

Senator HARDING. There was delay in inaugurating or starting that great yard by the failure to have the contract signed, was there?

Admiral BOWLES. Well, Senator, they undoubtedly could not start the actual work until their contract had been signed, but it does not seem to me that it would be right for me to answer that they were delayed because their contract had not been signed. I think it is fair to explain that this is one of the most important contracts, as far as I know, that the Government ever let, and it requires the most careful work, and it was the subject of a corps of people working actually day and night to complete it. Now, under this contract you must remember that the contractors had acquired the land prior to the signing of the contract, at least had acquired the site and were looking up all the matters relating to the title, in order that they might do their part, in order to avoid any delay in the final signing of the contract. The investment in the land now is theirs, $1,700,000.

Senator JOHNSON. When did they acquire it, Admiral?

Admiral BOWLES. They had the option prior to the signing of the contract.

Senator JOHNSON. They had the option after you began negotiating with them or before?

Admiral BOWLES. That I could not say.

Senator JOHNSON. Do you know whether or not you negotiated with them to furnish a specified piece of land or not?

Admiral BOWLES. I think not.

Senator JOHNSON. Did you negotiate with them to furnish any land prior to entering into any contract?

Admiral BOWLES. I could not say.

Senator JOHNSON. Can you state the manner in which the land was acquired?

Admiral BOWLES. No; I can not.

Senator JOHNSON. With whom did they first begin their negotiations?

Admiral BOWLES. With Gen. Goethals.

Senator JOHNSON. You can say with certainty, can you not, that until then they had not acquired the particular piece of land upon which the Government is erecting the plant?

Admiral BOWLES. I could not say anything about it; I don't know.

Senator JOHNSON. You do not know? Do you know whether they have definitely acquired the title yet?

Admiral BOWLES. I do not.

Senator JOHNSON. Do you know whether at the time you entered into contracts they had or whether they had not title to the land?

Admiral BOWLES. I simply heard Admiral Capps say one day that the final signing of the contract was to be delayed until the title was absolutely cleared up; that is all I know.

Senator JOHNSON. Are you familiar with the fact that the title was acquired for the purpose of entering into a contract?

Admiral BOWLES. No; I am not.

Senator JOHNSON. You know nothing about it at all?

Admiral BOWLES. No.

The CHAIRMAN. Are you, directly or indirectly, interested in any shipbuilding enterprise?

Admiral BOWLES. I am not.

The CHAIRMAN. You had negotiations, or the Emergency Fleet Corporation did, with the Southern Pine Association. Comment has been made here about their failure to furnish the timber that they undertook to furnish——

Senator JONES. Mr. Chairman, before you go into that will you let me ask the admiral a question that relates directly to this particular matter that we are on?

The CHAIRMAN. Yes.

Senator JONES. As I understand it, Admiral, the International will be paid about $6,000,000 for carrying out this contract.

Admiral BOWLES. If they comply with the deliveries——

Senator JONES. Oh, yes; of course.

Admiral BOWLES (continuing). And the conditions of the contract.

Senator JONES. How many men connected with that company are there who will do active work in connection with it who will not be paid a salary by the Government?

Admiral BOWLES. I do not know.

Senator JONES. Are there any?

Admiral BOWLES. I know one.

Senator JONES. Do you know of more than one?

Admiral BOWLES. I do not.

Senator JONES. Can you ascertain that?

Admiral BOWLES. Certainly.

Senator JONES. I wish you would. As I understand it, the Government is paying the officials and the labor and all that sort of thing and furnishing the material to do this work, and then we are to pay $6,000,000 to somebody, and I would like to know who they are and how many men there are who will be actively engaged in that work who are not receiving a salary, aside from the $6,000,000.

Senator NELSON. It will be paid to the spiritual head of the concern.

Senator JONES. It will be paid to the spiritual head of the pocketbook; that is what I want to find out.

Senator KIRBY. I understand you to say that certain ships are discontinued, not finished. Were those ships that we had contracted for before these others were? I understood you to say that certain ships you did not want were not finished.

Admiral BOWLES. I do not think so.

Senator JONES. I think the Senator refers to those contracts you referred to a moment ago.

Senator KIRBY. Contracts had been made for vessels you did not want?

Admiral BOWLES. The New York Shipbuilding Co. had contracts for two vessels for the Atlantic Transport Line, cargo vessels of 11,000 tons. The keels for those vessels had not been laid. There was a certain amount of material on hand for them in the yard. I was very anxious to secure the building of two troop ships, and in order to find a place for them it seemed to me that it was just to discontinue the building of these two ships for the Atlantic Transport Line and put the troop ships in their place; and in the same way with

regard to two cargo vessels which the New York Shipbuilding Co. had started on their own account; I discontinued those and put troop ships in their place.

Senator KIRBY. Necessarily, at the expense of the Government these ships were discontinued?

Admiral BOWLES. I can tell you all the details of that.

Senator KIRBY. No; I do not care about that. I just understood that you had ordered the first ones built, or they had a contract to build them, and then when you discontinue them of course it would be at the expense of the Government.

Admiral BOWLES. My feeling is that it is not going to cost us anything. We have made a very good trade.

Senator JOHNSON. Can you tell who constitutes the International Co.?

Admiral BOWLES. I can certainly find out.

Senator JOHNSON. I mean without difficulty.

Admiral BOWLES. Oh, yes.

Senator JOHNSON. If it is any trouble, I will not ask it.

Admiral BOWLES. It is in all the books.

Senator JOHNSON. I do not wish you to inconvenience yourself at all.

Admiral BOWLES. Certainly, I will find out.

Senator JOHNSON. Thank you, sir.

Senator BANKHEAD. Admiral, I understood you to say a few minutes ago that you had requisitioned several ships and you had not finished them?

Admiral BOWLES. Yes, Senator.

Senator BANKHEAD. What became of them?

Admiral BOWLES. Well, the keels of these vessels had not been laid. They existed in a small amount of material on hand; for two of the ships a portion of the materials had been fabricated, but in neither of them had the keel been laid.

Senator BANKHEAD. When you requisitioned those ships, you took them over, whatever there was?

Admiral BOWLES. We took all of the materials belonging to any vessel.

Senator BANKHEAD. You paid for that material, of course?

Admiral BOWLES. We had not paid.

Senator BANKHEAD. You are going to pay it?

Admiral BOWLES. We have paid now; we had not paid up to the time we made this contract with the New York Shipbuilding Co.; the original contractors had paid, but we had not paid anything.

Senator BANKHEAD. Let me see if I clearly understand the proposition. You requisitioned the ships in private yards, being built by private parties?

Admiral BOWLES. Yes.

Senator BANKHEAD. You requisitioned the ships and took them over, whatever there was?

Admiral BOWLES. Yes.

Senator BANKHEAD. What disposition has been made of those ships? Have you used that material for something else?

Admiral BOWLES. In every case that I can remember except these vessels. [After a pause.] There are two other cases. There were

three ships under contract at the New York Shipbuilding Co. that we did not proceed with. There was one vessel building at Samuel L. Moore & Sons, Elizabeth, N. J., that we did not proceed with in the way that it was provided in the contract, because it seemed to be not a useful type. So we changed that vessel to a tanker, and my recollection is we settled with the original owner.

The Newport News Co. had a contract for a coastwise passenger vessel, which we suspended the contract for, because it would have occupied a slip that could be occupied by something more useful. We are in process of settlement in that case.

Harlan & Hollingsworth Co. had a contract to build two steel passenger coastwise vessels. We have stopped the progress on those ships and applied the material to the construction of tankers. That process is going through now; it is not entirely settled.

But with these exceptions, Senator, we have proceeded with every vessel under construction in the private shipyards which were requisitioned on August 3.

Senator BANKHEAD. Could you give the committee any idea about what the total cost of these requisitioned ships is going to be to the Government?

Admiral BOWLES. The estimates that I prepared immediately after the requisitioning was begun was $515,000,000.

Senator JONES. You mean thousand?

Admiral BOWLES. I said $515,000,000.

Senator JONES. That is all?

Admiral BOWLES. Yes, sir.

Senator NELSON. That included the cost of building and also what you had to pay to the original owners?

Admiral BOWLES. To the original owners.

Senator BANKHEAD. That is what I was trying to get at.

Admiral BOWLES. I think I stated yesterday that we hoped to get out of that for very much less money, but I am not prepared to officially admit that to Congerss yet, because there were 401 ships altogether. Up to date we have settled with the owners, or we have a settlement which is binding for about 70 per cent of those ships, in which the cost to us has been very materially less than we expected.

Senator NELSON. Has it been on the basis of the contract price or has it been more?

Admiral BOWLES. If you will permit me to tell you in executive session, I will answer.

Senator NELSON. Very well.

Senator BANKHEAD. Admiral, before you get away from this other proposition, I am curious to know what the total cost has been to the Government of these requisitioned ships for which the Government gets no value.

Admiral BOWLES. I have not made myself clear, Senator?

Senator BANKHEAD. Perhaps not.

Admiral BOWLES. The requisitioning on August 3 was taking title to these ships for the United States. In every case——

Senator BANKHEAD. You simply requisitioned the title before any construction had taken place?

Admiral BOWLES. We took actual possession and thereby acquired title to whatever there was in the way of a ship regardless of contract.

Senator BANKHEAD. I understand that.

Admiral BOWLES. Regardless of stipulations—took possession of the actual thing. Now then, we had two things to do: One was to complete the ship for which we paid the money out of the Treasury.

The CHAIRMAN. There were some already completed?

Admiral BOWLES. There were some in all stages.

Senator BANKHEAD. I did not call for those that were completed.

Admiral BOWLES. We paid for the completion out of the money in the Treasury, and then the ship was ours. We had, in addition, then to pay the original owner this compensation for the taking of his vessel in whatever state we found it.

Senator NELSON. May I ask one question along with yours, Senator?

Senator BANKHEAD. Yes.

Senator NELSON. After you requisitioned these vessels, did you proceed expeditiously with the construction of all of them, or did you suspend work on some of them?

Admiral BOWLES. The notice by which the requisition was made said, "You will proceed expeditiously with the completion of these ships."

Senator NELSON. That is your notice, but has that been done?

Admiral BOWLES. Yes; that has been done.

Senator NELSON. So that after requisitioning you proceeded with the construction of these ships—all of them?

Admiral BOWLES. All of them.

Senator NELSON. According to the terms of the contracts, or did you attempt to expedite it?

Admiral BOWLES. We attempted in every case to expedite them. We made some changes in the ships for the purposes I described to you.

Senator NELSON. What proportion of these requisitioned ships were steel and what proportion were wooden ships?

Admiral BOWLES. They were all steel ships.

Senator BANKHEAD. I understand the admiral now to say all these requisitioned ships have been completed, either by the Government or by the original owners.

Senator NELSON. Only 45 have been completed.

Admiral BOWLES. Only 49.

Senator NELSON. I am not talking about uncompleted ships.

Admiral BOWLES. They are all proceeding, with the exception of the ones I have told you we wanted to put something else in their places.

Senator BANKHEAD. Admiral, I want to ask you one more question, in reference to the statement you made a while ago. You said you made up a complete program and submitted it to somebody—to the president of the board or somebody else.

Admiral BOWLES. I did.

Senator BANKHEAD. I understood you later to say that the program had never been adopted.

Admiral BOWLES. That is true.

Senator BANKHEAD. Will you tell us why it has not been adopted?

Admiral BOWLES. I think I ought to explain that in executive session; I would not like to show you that program in open session.

Senator BANKHEAD. That is all right, Admiral.

The CHAIRMAN. Admiral, coming back to the lumber situation: The statement has been made that the Southern Pine Association failed to comply with its agreement for its timber.

Admiral BOWLES. I did not make the statement, did I, Senator?

The CHAIRMAN. I did not say you did. I think it was made by a number of gentlemen who testified—that they promised to do certain things, make certain deliveries, and were not able to do it. Do you know whether or not any effort was made to deal with individual manufacturers of lumber, to give the "independents," as they call themselves, an opportunity to bid on this timber and furnish it? For instance, my understanding is that the Southern Pine Association, made up of a membership which altogether would probably amount to 25 per cent, maybe 35 per cent, of the manufacturers engaged in sawing lumber, and the question is: Have you limited your dealings entirely with the ones concerned with reference to the furnishing of timber for these ships, or have you given the independents—those outside, that 65 per cent outside of the Southern Pine Association—an opportunity to bid on this timber and furnish it?

Admiral BOWLES. I happen to know something about it; but, of course, the best witness to this is our general purchasing agent, Mr. Brown, who actually did the business himself. The only thing I know about it is this, that the assistant purchasing officer told me that he had placed a great many orders with the independents. In addition to that, I know that a delegation of independents called on me, to get me to use my influence to get some orders for them. When they came to me the going price for which the Southern Pine Emergency Bureau had undertaken to supply this lumber from the South was, as nearly as I can remember, $35 a thousand, and these independents said they could supply a very considerable quantity, but their price was $50, and they would not look at an order at any less; and so I bid them "good day."

The CHAIRMAN. That was the only instance you know of?

Admiral BOWLES. That is the only thing I know.

Senator JONES. Did they give any reasons why they would not consider a contract for less than $50 a thousand?

Admiral BOWLES. I think they said they could sell all their product at that price, and I imagine it was true.

Senator JONES. They did not point out the increased cost of labor and all that sort of thing?

Admiral BOWLES. No; they did not do that; they said the building of the cantonments and other similar things had produced such enormous demands that they could get orders at that time at much higher prices than we were paying, for bills that were very much easier to fill, and I believe it was true.

Senator JONES. In other words, they wanted to get all the profit they could?

Senator BANKHEAD. Of course they did.

Admiral BOWLES. I did not blame them; but there is no use of their complaining that they could not get orders, because they could have got plenty at the price that the other people had offered to supply it.

Senator BANKHEAD. Admiral, the subject was introduced by Mr. Stevens or some other gentleman about the construction of wooden

ships, that they had made their plans and specifications for a number of ships, and that they had made contracts under those specifications and that later the specifications were changed, the size of the timbers were increased, and these parties could not fill their contracts. Do you know anything about that?

Admiral BOWLES. Senator, I explained that fully in my testimony yesterday.

Senator BANKHEAD. I was not here. Then, it is in the record?

Admiral BOWLES. It is in the record, but I will be happy to give it again if you would like to have me.

Senator BANKHEAD. No.

Admiral BOWLES. Here is a copy of the amended schedule for the southern yellow pine in the Ferris standard vessels, and it involves about 1,700,000 feet b. m. for each vessel, and the changes that were made in the framing plans of the wooden vessels involves an increase in this schedule of about 100,000 feet.

Senator NELSON. For each ship?

Admiral BOWLES. For each ship; and the sizes were not of the maximum size already in the schedule. Would you like to look at that, Senator [indicating pamphlet]?

Senator BANKHEAD. No.

The CHAIRMAN. That was revised November 1?

Admiral BOWLES. That is the revised schedule made after the changes were made.

Senator BANKHEAD. The inquiry I had in my mind is this: Had these contractors obligated themselves to build these ships at a stipulated price under stipulated specifications, and they had constructed some shipyards and all that sort of thing at considerable cost, and that you changed these specifications so they could not build the ships. I wanted to know what had become of their investment.

Admiral BOWLES. Every contract has a provision in it that the owner has a right to make changes and prescribes the methods by which contractor shall be paid. There was no change made that would have affected the contractor's plant or his investment, and that, in my judgment, would not yield him an additional profit if he handled it right.

Senator BANKHEAD. That is just a difference of opinion between you and the contractor.

Admiral BOWLES. I have had no difference of opinion with them up to date.

Senator BANKHEAD. A good many of them said, "We can not build; we can not furnish these specifications."

Admiral BOWLES. You are not thinking of ship contractors; you are thinking of the people who took orders to supply the schedules of lumber.

Senator BANKHEAD. Well, whoever it was; I thought it was the ship contractors who made a bid on the specifications.

Admiral BOWLES. No; the ship contractors undertook to build the ship. The Fleet Corporation in a number of cases undertook to supply them with the lumber and placed the orders for them. It is true that some mills undertook to supply those schedules and had great difficulty with them. They proceeded to go through the schedule and pick out the things that they could supply, and you would find that

up and down the coast the shipyards were supplied with decking and planking and joiner-work lumber that they would not use until the very last thing. Any extra cost that was involved in these changes was paid by the Fleet Corporation.

Senator BANKHEAD. That is just exactly what I was trying to get at.

The CHAIRMAN. The contractor would suffer in case he could not get his material promptly or as he desired?

Admiral BOWLES. Yes; but if that occurred he had a good claim against us.

The CHAIRMAN. He might have his force of men idle.

Senator BANKHEAD. You just paid the difference?

Admiral BOWLES. Yes, sir; we have got it to pay.

Senator BANKHEAD. And you met that difference because the plans and specifications were changed?

Admiral BOWLES. The trouble with those wooden contracts was many of them were undertaken by people who had never built a ship before and never entered into a contract of the formality and complication of the ship contract, and in the course of my duties I have never thought it was good taste to invite a contractor to put in a claim, but the most of these contractors have been so ignorant that I have had to explain to them that they had a good claim and to tell them actually how to figure it up.

The CHAIRMAN. Admiral, have you finished with the outline of those duties? I do not know whether you were interrupted before you concluded that or not; you were interrupted, I know.

Admiral BOWLES. I had finished the outline of those duties, and I had indicated that I would like to explain something with regard to the industrial service department. In addition to that, I would like to take up the matter of housing and some things in which I think that you could be of help to us; and then the matter of executive session.

The CHAIRMAN. Gentlemen, with regard to this report of Mr. Inglis, it seems to me if there is anything confidential in this whole matter it would be this, because it is a report from an investigator to his principal, in the first place, and then it shows the various stages of work on various ships in the various yards which he examined, and I do not see that it gives us any new light. The committee has the data, perhaps, and all that they want on this subject, and so far as I can observe it is a matter that need not go into the record.

Senator HARDING. I do not think there is any advantage in having that in the record.

Senator JOHNSON. Senator McNary wishes me to ask you a question concerning the price paid for pine. Has the price been raised by the board to $40 a thousand?

Admiral BOWLES. It has been twice raised and is now something over $40.

Senator JOHNSON. What price is it now, if you please?

Admiral BOWLES. I can not say the exact price. That is the average price. That is the average price in this schedule which I handed in a moment ago, and you will see that the price was specified for every item, and I think the average is something over $40.

Senator JOHNSON. The Senator asked whether or not $35 per thousand was not the price paid on the Pacific coast?

Admiral BOWLES. That I do not know.

Senator NELSON. Admiral, did you state the price of Douglas fir?

Admiral BOWLES. I did not; and I do not remember, Senator, what it was. I have never had anything to do with the placing of those orders, but I can easily find out.

Senator NELSON. I wanted to ask you one or two questions. I have here a galley proof print of the first part of the list of the ships you gave us yesterday, and I find from this list that from the first of April—April 20 appears to be the first date the contract was made—up to July 3, 28 contracts were let, and out of those contracts 10 appear to be in existing shipyards and 18 were contracts with yards that did not exist. And then I find that out of the whole number of 28 there were 18 contracts for wooden ships. Did that look like an expeditious method of pursuing business to let so many contracts where there were no yards at all? I will show you the list.

Admiral BOWLES. I have the list before me, Senator.

Senator NELSON. These were marked with asterisks.

Admiral BOWLES. Yes.

Senator NELSON. They are marked there down to the 3d of July, I think.

Admiral BOWLES. In answer to that, Senator, I am trying to remember the shipyards in existence that built wooden vessels. My impression is that they were very, very few.

Senator NELSON. Evidently those stars indicate it in your list there.

Admiral BOWLES. Yes; but of those that were starred, the Merrill-Stevens Co., a yard in existence, got one of the earliest contracts for wooden vessels; the Peninsula Shipbuilding Co. was the next yard that was in existence. Now, they got a contract for wooden vessels. Just preceding them, on the 13th of May, was the Los Angeles Shipbuilding & Dry Dock Co., which got a contract for steel vessels. That yard launched the second steel vessel for the Emergency Fleet Corporation, and they started from an open field. That vessel was launched——

Senator JOHNSON. They started last June?

Admiral BOWLES. Yes; they started last June, and they launched the first ship about two weeks ago.

Senator NELSON. How many wooden vessels on these contracts have been completed and are afloat?

Admiral BOWLES. There are two vessels afloat, none completed. I think, although I have not counted it up exactly, in the period to which you refer, from April 29 to July 3, there were considerably more wooden vessels awarded than the existing shipyards were capable of turning out.

Senator NELSON. That list indicates it. It would indicate that most of the contracts, if you take this list here for wooden ships—I do not know about the tonnage—but the greatest in numbers on these contracts were where there were no yards in existence at all?

Admiral BOWLES. Yes.

The CHAIRMAN. Then, if that is all, I think we had better proceed with executive session, as we want to hear what Admiral Bowles has to say in confidence.

Admiral BOWLES. I have a number of other things, Senator, that I would like to finish first, if it would be agreeable to you.

The CHAIRMAN. I thought you had finished.

Admiral BOWLES. No, sir.

The CHAIRMAN. All right, proceed.

Admiral BOWLES. I wanted to explain to you the organization of the industrial-service department.

Senator NELSON. That is, the labor department—it relates to labor?

Admiral BOWLES. It relates to labor. The shipyards of the United States, not having conducted a profitable industry for many years, had not been able to adopt the best and the most modern methods with regard to the employment of men nor the conditions under which they worked. Therefore, it seemed to me that as the shipbuilding program depended upon the recruiting of the shipyard forces in man power that one of the most important things that the Fleet Corporation could do was to attempt to instruct the shipbuilders how to organize for getting men and how to keep men when they got them. For that purpose we organized this industrial-service department, and one of the first things was to try and obtain from the shipbuilders——

Senator NELSON. Who is at the head of this?

Admiral BOWLES. Mr. Meyer Bloomfield, whom I am going to ask you to hear and tell his own story. I am only trying to give you an idea of what we have attempted to do. We started in to try to get from the shipbuilders the facts in regard to employment, and that has been exceedingly difficult and has not yet been entirely accomplished, although we started in September. Our last returns show that from 109 shipyards there are 149,270 employees; and that shows an increase of 45.2 per cent in nine weeks. But we find from the shipyards that there is an enormous turnover of men, and that the average turnover of all the shipyards is over 300 per cent; that is, they have to employ three times their actual force during the year in order to maintain it at all, and in many of the largest shipyards the turnover is 600 per cent. Our attempt has been, by getting the various people together, to disseminate the knowledge of those who are most skillful in this to those who are inexperienced.

Senator HARDING. Admiral, you mean by the "turnover" that there must be an excess of employment in order to have a full roll of operators?

Admiral BOWLES. I mean to say that if a man is employing 10,000 men as a regular force, that during the year he will employ 60,000 men to maintain it.

Senator HARDING. Has not the industrial service department ascertained the cause of that?

Admiral BOWLES. I think so, in a measure.

Senator HARDING. What is that cause?

Admiral BOWLES. It is a great variety of causes. For instance, out of the 109 shipyards only 20 reported that they had a central employment agency; that is, that their men were employed by discriminating persons, who took care to locate the men in the jobs that they were capable of filling. In the other shipyards, the 90 others, the men are employed by the foremen, men who are harassed every moment the livelong day with regard to the actual conduct of the work, and if a man shows the slightest fault on what he is first put at, or even before he gets to his job, the foreman says "You are no

good," and out he goes. That is one of the greatest elements in the turnover, the unintelligent application of the man power that offers itself.

There are a number of other causes relating to sanitary conditions, safety conditions, the transportation conditions for getting men to and from their work—all those things affect this turnover in the shipyards.

Senator BANKHEAD. Admiral, do you not think that the higher rate of wages that is being paid has a good deal to do with it?

Admiral BOWLES. Now, Senator, I did hope that I was going to escape that phase of the subject.

Senator BANKHEAD. I withdraw the question.

Admiral BOWLES. I have tried to deal with what I call the constructive side of the labor question and stay entirely aloof from the matter of disputes in wages.

The other important feature of the industrial-service department was an attempt to recruit skilled labor by vocational training. We have secured the services of the best vocational-training experts of the country and we have started what we call "an industrial Plattsburg." We have offered any shipbuilder who will send skilled men to our training school $5 a day for each man that he sends for the six weeks' course as a contribution toward the expense, and then if he establishes a training center in his own shipyard when these men come back we will pay each shipbuilder a dollar a day for each man who goes into training at his shipyard for 78 consecutive days, 50 cents of this going to the shipbuilder as a contribution for loss of efficiency and 50 cents to the man as a bonus for undertaking the training. The purpose of it is to teach intelligent mechanics who have the capacity of leadership to teach others, and I believe that if this system is followed up that it will lead to the production of at least 50,000 skilled workmen in the course of a year and at a minimum expense. I wanted to ask you to hear, if you will, from the people who are carrying this work on.

Mr. Chairman, I would like to say a word in regard to the housing problem. That is a matter which it is not for me to deal with finally, but I have become involved in it because the housing is an essential part of the production of tonnage. Up to date the Fleet Corporation has done this: We found that for the American International Corporation they would require to employ about 25,000 men, and that with the limited facilities for transportation from the city of Philadelphia we could not expect to get there every day more than 15,000 men and it would be necessary to provide housing for 10,000 men.

Senator NELSON. Ought not the International company to house its own men, with a big, fat contract like they have? Why should they not house their own men instead of the Government's doing so?

Admiral BOWLES. The maximum possibilities, Senator, that they can get out of the contract is about $6,000,000, and the cost of the housing that we find they must provide for amounts to $10,000,000.

Senator NELSON. You know they own the ground and the houses would be theirs.

Admiral BOWLES. No, sir.

Senator NELSON. And they would have a big shipyard ready there.

Admiral BOWLES. If you will do what we ask you to do, we will own the whole business.

One of the difficulties that we have at the present time with the housing problem, Senator, is that we have no authority to commandeer houses nor to take land. You know that the laws of the United States with regard to the purchase of land are exceedingly rigid and we can not buy a piece of land without an appropriation from Congress.

Senator BANKHEAD. Admiral, excuse me. Have we not got statutes authorizing the President to take possession of that land and fix the price?

Admiral BOWLES. We have only one, and that relates to the Navy, for the construction of destroyers, and my feeling is that the authority there given will not be sufficient for us; that is, in the form in which it is given there.

Senator BANKHEAD. Do you not think it would be better to extend that authority?

Admiral BOWLES. I do. I am asking that you will give us authority in the Fleet Corporation to requisition houses for men. I want authority to take houses. I know of a shipyard which is in the vicinity of a summer colony which is capable of housing 6,000 men. Men could be put into that place at once and relieve a situation of the greatest importance to us. I know many other similar cases where this housing expense can be avoided if we had the authority to take houses.

Senator JONES. The houses in this place you refer to are used in the summer now and are closed up in the winter?

Admiral BOWLES. Yes.

Senator BANKHEAD. If you were to take those houses, you would have to pay for them, would you not?

Admiral BOWLES. Certainly.

Senator BANKHEAD. Who would fix the price?

Admiral BOWLES. We would—the President of the United States.

Senator NELSON. If they could not agree, it would be subject to arbitration.

Senator HARDING. The courts would fix it.

Admiral BOWLES. If we had to go to the courts, we would do so.

Senator NELSON. These are summer tourists, Senator, and I do not know why we would be so sensitive about that.

Senator BANKHEAD. I am not making a special plea for the tourists, but I am suggesting that if you go into court the local jury would not fix a low price.

Admiral BOWLES. We do not want to do that. We want to be free from the courts. We want to go out and say, "We want this land and we are willing to pay you so much for it. If you won't agree to that, we will pay you 75 per cent and you have got your recourse in the courts, but we must have it, and that is the end of it."

Senator NELSON. One great thing we have accomplished by this war has been stopping this great flow of tourists to Europe, where they have been spending millions of money. Now, if we can keep these people away from their summer cottages and utilize those cottages for laborers, we will supplement the other good work, and these rich men will have capital to buy Government bonds with. [Laughter.] So, I am decidedly in favor of that idea, Admiral.

Admiral BOWLES. I think it will save millions of dollars.

The CHAIRMAN. Why not locate these plants where you would not have that housing problem to deal with—localities where you do not need to spend so much money?

Admiral BOWLES. How can we help it when we have to have an enormous area of land for a shipyard capable of having 50 shipways for ships? We must have vacant land. For the American International Co. we were obliged to build a town entirely apart from Philadelphia for this purpose.

The other project of housing that we have under consideration is at another shipyard which is a considerable distance from the center; that is at Sparrows Point, Md., about 9 miles from Baltimore, where they have been able to get only half the number of men that their shipyards are capable of employing, and there if we could build 1,500 houses we could increase that force and increase the production of that shipyard by 10 large boats annually.

Senator NELSON. Do you propose to build houses of what I would call a temporary character, or would you build expensive and permanent houses?

Admiral BOWLES. My idea was to build permanent houses, and we have progressed this far with the Sparrows Point project: The owners of the shipyard are willing to put in the land; they are willing to give us a first mortgage on the land and houses built and let us regulate the rents and the prices at which they would be sold; that all rented houses would be exclusively occupied by shipyard workers. We asked them to guarantee the return to us within from five to ten years of at least three-fourths of the money. We were willing to take our chances on the other quarter in the land and the houses themselves.

Senator NELSON. Who would finally own the land and the houses?

Admiral BOWLES. They would own them after they had paid us, but our mortgage on the whole would hold until we got the last cent. For that purpose it is necessary to build a permanent type of a house.

Senator BANKHEAD. Admiral, you would expect to charge a reasonable rent?

Admiral BOWLES. We would expect to control the rent and see that the rent was reasonable in proportion to the accommodations, and we would exercise entire control over the expenditure of the money, to see as far as possible that nobody made any profit except the people that actually did the work.

Senator NELSON. Your idea, then, if I gather it correctly, Admiral, is you want help in two directions: One is, you want authority to use money to build such houses?

Admiral BOWLES. Yes.

Senator NELSON. And then you want authority, also, to commandeer houses?

Admiral BOWLES. I do.

Senator NELSON. Such as in the case you refer to—both?

Admiral BOWLES. Yes. We would not take title to the houses that we commandeered; we would only requisition the use for a limited time, so that really is an enforced lease.

Senator NELSON. You would commandeer the use of the houses and nothing more?

Admiral BOWLES. Yes; but in places where we have to build these towns of permanent construction we ought to have authority to take the land by commandeering methods.

Senator JONES. If there was an extension of the provision in the naval bill, would that meet your situation?

Admiral BOWLES. Yes. I have taken the liberty of trying to throw together the ideas I have explained to you in the form of a draft of a bill. I know it is not in the form that it ought to be, but it is merely a suggestion of the powers that I think we ought to have.

Senator NELSON. Have you any objection to having it go in the record?

Admiral BOWLES. I have none whatever.

Senator JONES. I think that ought to go into the record.

(The draft of the bill submitted by Admiral Bowles is here printed in full, as follows:)

HOUSING BILL.

AN ACT Making appropriations to supply urgent deficiencies in appropriations for the fiscal year ending June thirtieth, nineteen hundred and eighteen, and prior fiscal years on account of war expenses, to provide for proper housing of employees of shipyards, and for other purposes.

Be it enacted by the Senate and the House of Representatives of the United States of America, in Congress assembled. That the United States Shipping Board Emergency Fleet Corporation is hereby authorized and empowered within the limits of the amounts herein authorized—

(a) To purchase, lease, requisition, or otherwise acquire any improved or unimproved land suitable for the construction thereon of houses for the use of employees of shipyards in which there are now being constructed ships for the United States.

(b) To construct on such land houses and all other necessary or convenient facilities, upon such conditions and at such price as may be determined, and to sell, lease, or otherwise dispose of such houses, land, and facilities upon such terms and conditions as it may determine.

(c) To purchase, lease, requisition, or otherwise acquire any houses or other buildings, together with the land on which the same are erected, and all necessary and proper furnishings therefor; to manage, repair, sell, lease, or otherwise dispose of such houses and buildings upon such terms and conditions as it may determine.

(d) To cancel, modify, suspend, or requisition any existing or future contract relating to the purchase, lease, or mortgage of any such land or building. All houses, land, facilities, and furnishings acquired as herein provided shall be leased, sold, or otherwise disposed of only to persons now or hereafter employed in the shipyards constructing ships for the United States.

Whenever said United States Shipping Board Emergency Fleet Corporation shall purchase, lease, requisition, or otherwise acquire such land or such houses, or shall cancel, modify, suspend, or requisition any such contract it shall make just compensation therefor to be determined by it, and if the amount thereof so determined by it is unsatisfactory to the person entitled to receive the same, such person shall be paid seventy-five per centum of the amount so determined by it, and shall be entitled to sue the United States to recover such further sum as added to such seventy-five per centum of the amount so determined by it, and shall be entitled to sue the United States to recover such further sum as added to such seventy-five per centum of the amount so determined by it, and shall be entitled to sue the United States to recover such further sum as added to such seventy-five per centum will make up such amount as will be just compensation therefor in the manner provided for by section twenty-four, paragraph twenty, and section one hundred and forty-five of the Judicial Code.

The power of purchasing, leasing, requisitioning, or otherwise acquiring such land and houses herein granted shall cease six months after the termination of the present war with Germany.

The word "person" used herein shall include any person, trustee, firm, or contractor. The word "shipyard" shall include any factory, workshop, ware-

house, engine works, buildings used for manufacturing, assembling, construction, or other process in shipyard and dock yard and discharging terminal, and other facilities connected therewith, now or hereafter used in connection with shipbuilding.

The cost of purchasing, leasing, requisitioning, or otherwse acquirng houses, lands, facilities, or furnishings shall not exceed the sum of $50,000,000, the expenditure of which is hereby authorized, and in executing the authority granted by this act for such purpose the said United States Shipping Board Emergency Fleet Corporation shall not expend or obligate the United States to expend more than the said sum, and there is hereby appropriated for such purpose $25,000,000.

All acts inconsistent with the exercise of the powers herein granted to the extent that said acts are inconsistent are hereby repealed.

Admiral BOWLES. At this point I would like to tell you of a program——

Senator NELSON. You mean labor difficulties?

Admiral BOWLES. Yes; difficulties in getting labor to the point where we want it. We will have a great deal of difficulty with local transportation, and I would like to have lawful authority to compel the trolley lines and ferryboats to provide special transportation for shipyard workers in accordance with the methods of transportation, because if we can do that we can enlarge the circle in which men can live, and thereby decrease the expense that we have to go to for housing, and we can decrease this turnover of men who will become dissatisfied with having to spend an hour standing up in a street car in order to get home.

Senator NELSON. In other words, you want authority to requisition street car service necessary for the men?

Admiral BOWLES. Yes, sir.

In addition to that, I would like to have lawful authority for the Fleet Corporation to declare a war zone around a shipyard.

Senator NELSON. That is certainly necessary.

Admiral BOWLES. It is necessary for protection, and it is necessary also for reasons that contribute to this turnover. If we could exclude unsuitable conditions for a reasonable area around a shipyard it would materially help us.

The CHAIRMAN. I think the present law gives the President that power.

Admiral BOWLES. I am advised that we would require legislation to effect it.

Senator NELSON. Oh, I think you would; I do not think the espionage law quite covers it.

Admiral BOWLES. I do not want to have you think I am full of trouble, but all these things would be an important help to us in getting men who are necessary to carry out this program.

In one other thing we have been having serious trouble within the last three weeks, and that is in placing contracts for new vessels at any sort of a reasonable price, owing to the fear that has entered the heart of every shipbuilder in regard to the taxation laws. The shipbuilders at one time hungered and thirsted for contracts at cost and 10 per cent but now do not want one. They say that they would have nothing left after two-thirds of it has been taken. My own experience teaches me that a shipbuilder, in order to have a profitable contract, should have 10 per cent of the value of the work that he does in real money, otherwise he will actually go behind from the things

that are invisible. Many contractors are coming to us to-day and asking us to protect them against the taxation laws.

Senator JOHNSON. What taxation laws do you refer to?

Admiral BOWLES. The excess-profits tax.

Senator JOHNSON. The one that has been passed by Congress?

Admiral BOWLES. Yes.

Senator JOHNSON. Well, I think they need it.

Admiral BOWLES. You think they need the protection?

Senator JOHNSON. Oh, yes; from that particular law.

Admiral BOWLES. It would be very helpful to us if you could give us the necessary authority. Of course, so far as I have been consulted I have advised that it is not suitable for us to attempt to legislate, and then we can not protect anybody against the operation of the taxation laws.

Senator JONES. Admiral, I want to ask you about this last suggestion. I don't know whether I caught it or not. You want authority under which you can exempt shipping men or shipping contractors from the operation of our tax laws?

Admiral BOWLES. I think it would be very helpful to us in getting the results, for two reasons.

Senator JONES. Does that mean that you want authority to exempt one contractor and let the law apply to another?

Admiral BOWLES. Oh, no.

Senator JONES. And make an exemption of a certain amount for one and a certain amount for another?

Admiral BOWLES. I can not say, Senator, how to do it, but I only tell you we are in deep trouble now in making contracts owing to the uncertainties of the operation of this law.

Senator JONES. Instead of giving you authority for doing anything along that line, would it not be better for us to exempt them from the operation of the law?

Admiral BOWLES. Certainly.

Senator JONES. Instead of giving you the authority to do it?

Admiral BOWLES. Certainly; we de not want the authority to do it.

Senator NELSON. Have you not enough contracts outstanding now if you could build but the ships you have contracted for; will not that pretty nearly fill the bill?

Admiral BOWLES. They will complete these ships, Senator, and we must keep them going at full tilt.

Senator NELSON. This involves between 8,000,000 and 9,000,000 tons, does it not?

Admiral BOWLES. Yes.

Senator NELSON. If you got those contracts completed which are outstanding, what more do you need than to rush those?

The CHAIRMAN. We have got to consider submarines.

Senator NELSON. That is in the Navy Department.

The CHAIRMAN. No; these vessels will not live forever, you know.

Senator JONES. Where are the contractors located who are protesting against being subjected to these taxes?

Admiral BOWLES. Everywhere.

Senator JONES. I have seen several telegrams from the Pacific coast indicating that they are willing to enter into contracts now for ships.

Admiral BOWLES. At very high prices.

Senator JONES. I do not know how the prices compare with those under existing contracts. At any rate, they seem to be very anxious to get contracts, and apparently on the terms——

Admiral BOWLES. The prices are out of sight.

Senator NELSON. Admiral, you have by your scheme practically knocked out private shipbuilding in this country, haven't you?

Admiral BOWLES. We have but one customer for the shipbuilders now.

Senator NELSON. And that is the United States or the Emergency Fleet Corporation?

Admiral BOWLES. Yes.

Senator NELSON. Now, where the shipyards have only one customer, and that is yourself, what competition have you about the matter of price?

Admiral BOWLES. We have none.

Senator NELSON. Then you have the right to say what you will give?

Admiral BOWLES. So we have, but the charge is on us to produce ships.

The CHAIRMAN. If you can not get it done at proper prices you come back to my original proposition—you have got to do it yourselves.

Admiral BOWLES. I did not finish telling you, Senator, why some action by Congress in this matter would be helpful to us. Not only would we be able by clearing this situation up to establish a reasonable price for contracts in which the contractor now takes the risk, neither of us knowing what the result is going to be to him, but if we could eliminate that unknown quantity it would be economical to the Government and, in my judgment, it would be quieting to labor.

Senator JOHNSON. In the one instance of the American International Co. the contractor takes no risk, does he?

Admiral BOWLES. Yes; he pays the taxes.

Senator JOHNSON. Oh, yes; he pays the taxes on this amount and then gets the six or eight million for the "know how."

Admiral BOWLES. And he loses a very large proportion of his fee if his cost exceeds his estimate or his deliveries are not fulfilled.

Senator JOHNSON. Yes; and receives an increased amount if his cost is less or his delivery in advance?

Admiral BOWLES. Yes.

Senator JOHNSON. So that is a mutual proposition, is it not, working both ways?

Admiral BOWLES. Yes.

Senator JOHNSON. Is that situation the same with the other two, the Submarine—and what was the other one?

Admiral BOWLES. The Merchants.

Senator JOHNSON. Yes; and the Merchants?

Admiral BOWLES. Yes.

Senator JOHNSON. Those three companies are building how many ships?

Admiral BOWLES. The Submarine is building one hundred and fifty 5,000-ton ships; the Merchants, one hundred and forty 9,000-ton ships; and the American International, fifty 7,500-ton ships and seventy 8,000-ton ships.

Senator JOHNSON. That is 310, all told. That is a pretty fair proportion of the whole number that you are contracting for?

Admiral BOWLES. We have 550-odd contracted for of steel vessels.

Senator JOHNSON. Outside of those?

Admiral BOWLES. No; including those.

Senator JOHNSON. So that there are in these three contracts 310 out of 550?

Admiral BOWLES. Yes.

Senator JOHNSON. Are all three of those corporations upon the same basis as the International?

Admiral BOWLES. The same theory; yes.

Senator JOHNSON. So that they take no chances, and receive this amount you have designated?

Admiral BOWLES. Yes.

Senator JOHNSON. Don't you rather think they ought to pay taxes?

Admiral BOWLES. Why, of course.

Senator JOHNSON. And a very large proportion of taxes as well. You would not want anything that would give you power to exempt them, would you?

Admiral BOWLES. I think they are in a different situation, although it does not look so very good when you examine these figures. The total fee is $6,000,000, the tax $3,600,000, leaving a balance of $2,400,000. The land investment amounts to $1,706,000, leaving a final balance of $694,000.

Senator JOHNSON. Oh, yes; if you deduct the land investment. There is another question in that regard that I did not intend to ask you, but do you know whether or not they are interlocking with any other corporations that furnish materials?

Admiral BOWLES. Not to my knowledge.

Senator JOHNSON. Are they not composed of individuals who are interested as well in the materials that are furnished for shipbuilding?

Admiral BOWLES. The principal materials in the ship are steel, and I have no knowledge that there is any direct interlocking relation at all.

Senator JOHNSON. Are there not individuals who are members of both corporations?

Admiral BOWLES. Individuals are probably stockholders, but whether they are corporate officers I do not know.

Senator JOHNSON. Well, the fact of the matter is that the individuals who are interested in the American International are interested as well in corporations that are furnishing materials for the building of those ships, is it not?

Admiral BOWLES. Not that I have any knowledge of.

Senator JOHNSON. You could ascertain that readily, could you not, Admiral? If not, I won't trouble you with it.

Admiral BOWLES. I should prefer not to do it.

Senator JOHNSON. Very well; I shall not ask you to do it.

Admiral BOWLES. Because, as I say, the principal materials are steel, engines, and boilers. Those are the things I have to do with, and I have no knowledge of their being interested.

Senator JOHNSON. Very well. It was suggested the other day that the financial backing of this International Co. was the National City Bank, was it not?

Admiral BOWLES. It was.

Senator JOHNSON. Do we need to go further to inquire whether those interested in the National City Bank are interested in any of the materials that are furnished for the building of the ships?

Admiral BOWLES. That is a matter that I have personally no knowledge of whatever.

The CHAIRMAN. Was that contract put in the record yesterday, Admiral?

Admiral BOWLES. The contract with the American International Corporation was.

Senator NELSON. Is that one of the sample contracts you referred to?

Admiral BOWLES. It is.

Senator NELSON. That will be printed in full, then?

Admiral BOWLES. Yes.

The CHAIRMAN. Admiral, these three plants are all on one railroad—the Pennsylvania—are they not?

Admiral BOWLES. I think there are two railroads leading to the Bristol plant, the Reading and the Pennsylvania; that is, the Hog Island plant. I do not know which railroad goes to Bristol.

The CHAIRMAN. It simply occurred to me as being possibly a pretty heavy burden to put on an already overburdened road, three tremendous plants like those.

Admiral BOWLES. I think two railroads go to the Newark plant.

Senator JONES. Admiral, with reference to these proposed contracts for the Pacific coast, can you give me some idea as to how much they have increased their demands?

Admiral BOWLES. You mean, on account of taxation?

Senator JONES. Yes.

Admiral BOWLES. Why, I should say from $15 to $20 a ton.

Senator JONES. What are you paying now per ton?

Admiral BOWLES. Where we are paying now $160 they want $180 to $185, and some as high as $200.

Senator JONES. And you can not get any proposals from responsible people at the old prices? Is that true?

Admiral BOWLES. That is true. I will not say they have all been canvassed, Senator, but all the principal ones are now negotiating with us for additional contracts, and that is the situation.

Senator JONES. For additional contracts? You mean, those that have existing contracts do not seem to be willing to take additional contracts except at an increase of $20 a ton?

Admiral BOWLES. A very much increased price.

Senator JONES. The telegrams I have seen from people out there are from people who have not been able to get contracts or have not been able to get vessels sufficient for their accommodations. Do you know whether they are asking prices that are above the regular price?

Admiral BOWLES. Every one.

Senator JONES. I do not see Senator McNary here. Senator McNary has several telegrams from builders and corporations in Oregon

that I should have liked to be able to present to you in that connection. They complain that they are not able to get the contracts; that they have ample facilities and labor and an excess of material, but they can not get contracts for any ships, some of them.

Admiral BOWLES. Were these contracts for wooden vessels?

Senator JONES. That is what I am talking about.

Admiral BOWLES. I am talking about steel ships.

Senator JONES. Oh, that is what you were referring to in the matter of taxes?

Admiral BOWLES. Yes.

Senator JONES. I am referring to wooden ships. I am glad to have that cleared up, then. It is the steel people that are objecting to this excess-profits tax?

Admiral BOWLES. Yes.

Senator NELSON. Don't you think the outstanding contracts you now have exhaust the supply of material that can be readily secured?

Admiral BOWLES. No, sir.

Senator NELSON. I mean the material that can be secured promptly and rapidly.

Admiral BOWLES. No, sir; I do not.

Senator NELSON. I thought you said our wooden ships were being delayed for lack of material?

Admiral BOWLES. But I think the situation with regard to steel ships is materially different.

Senator NELSON. You think there will be no lack of material, no embargo, in that case?

Admiral BOWLES. We may have to resort to an embargo to reserve the supply of steel plates for ships, but the capacity is here and the need is here.

Senator NELSON. Are the mills turning out such a quantity?

Admiral BOWLES. Yes; they are at present.

Senator NELSON. And filling the demand?

Admiral BOWLES. Yes.

Senator NELSON. In all yards where they are building steel ships for the Government?

Admiral BOWLES. Yes.

Senator BANKHEAD. Admiral, do you remember whether or not you have had an application from the Tennessee Coal & Iron Co. for a contract to furnish iron for these ships?

Admiral BOWLES. I think there is a corporation forming for the construction of a shipyard at Mobile.

Senator BANKHEAD. The Tennessee Coal & Iron Co. is an old corporation.

Admiral BOWLES. I mean a subsidiary corporation for shipbuilding, which was to be under the auspices of the United States Steel Co. I believe there is such a corporation forming, but they have no contract from us at the present time.

Senator BANKHEAD. They have made no application?

Admiral BOWLES. They have been around talking about it, but they have not made a proposal yet.

Senator BANKHEAD. They are building a very large yard there.

Admiral BOWLES. So they say. They came to us and wanted to get priority certificates, but they have not gotten them from us.

They have already been around and they will undoubtedly get a contract if they make the offer that they said they would make.

Senator BANKHEAD. You know they are making their own steel there and carrying it down the river. Their transportation charges will be light in comparison with those of other shipbuilders. Their coal also goes down the river. They are located right on the bank of the river and the coal mines are right on the bank.

Senator JONES. Admiral, you indicated yesterday, by a statement with reference to the lumber situation both on the Pacific coast and the southern Atlantic coast, that there is a shortage of material to meet the demands of the existing program that is under contract. With reference to the Pacific coast, did you make any inquiries as to the cause of that situation?

Admiral BOWLES. No.

Senator JOHNSON. You have not any doubt about the supply of timber out there?

Admiral BOWLES. I was told that there was plenty of timber.

Senator JONES. But you have not made any investigation to see why the lumber is not actually available?

Admiral BOWLES. I know of the difficulty that we had in the beginning.

Senator JONES. What was that?

Admiral BOWLES. That was labor trouble.

Senator JONES. I think that has been satisfactorily adjusted. You have no reason for thinking that the supply will not be kept up?

Admiral BOWLES. Well, the supply is very slow in coming forward. I do not know anything of what the conditions are, Senator, but I do know the supply is slow.

Senator JONES. That is, that those who have contracts are not able to get materials as fast as they could use them? When was your latest report with reference to that situation on the Pacific coast?

Admiral BOWLES. Why, we have had one of our district officers from the Pacific coast here with us for the last week, and the most recent information has come from him.

Senator JONES. Who is that?

Admiral BOWLES. That is Blaine, our district officer in Seattle.

Senator JONES. Capt. Blaine?

Admiral BOWLES. Yes.

Senator JONES. Doesn't he give you any reason for this situation?

Admiral BOWLES. I did not obtain any from him; no.

Senator JONES. He is here now?

Admiral BOWLES. No; he is gone.

Senator NELSON. Did he leave a written report?

Admiral BOWLES. No; he did not. You see the wooden shipbuilding business has been taken away from me for the last two weeks, and so my conversation with him was on the subject of our steel contracts.

Senator JONES. Who has that in charge?

Admiral BOWLES. Mr. Heyworth.

Senator JONES. He is available?

Admiral BOWLES. He is available.

Senator JONES. Admiral, I want to ask you a question that I think would be proper in open session about this program that you say

you prepared. Did that program cover, for instance, on the Pacific coast the matter of supplying transportation facilities between that coast and Alaska in the way of barges and whatever ships might be necessary?

Admiral BOWLES. It did not take up the subject of barges, and I did not take up that particular matter.

Senator JONES. The general understanding is that the Alaska Railroad will be completed by next spring—into the coal fields at any rate—and that if we have transportation facilities we will be able to get coal from Alaska for naval purposes. Would it not be very important to take care of that?

Admiral BOWLES. I had heard that, Senator, and I had heard of the request for barges, but it seemed to me that the type of vessel we were building—cargo vesels—would be able to take care of this.

Senator NELSON. The road is not completed to the coal fields; that is only a branch road, and the road to the interior is not built at all beyond where the branch switches off to the Matanuska fields.

Senator JONES. They will have a road into the Matanuska fields by next spring.

Senator NELSON. I do not believe they will have it.

Senator JONES. I understand Secretary Lane says it will be put in there. Of course I do not know.

Senator JOHNSON. Did your program deal with the routes from the Pacific coast to the Orient?

Admiral BOWLES. This program that I made up, Senator, did not deal with routes at all. It simply dealt with the types and numbers of the different types of vessels that it seemed to me we ought to build and we could build. But in making up that program I was unable to take up anything but the emergency.

Senator JONES. In connection with that, Admiral, we have, for instance, to take coal around from the Virginia fields for the Navy on the Pacific coast. Don't you think it would be important in the emergency to relieve that situation and supply these coal demands from near home and save the ships that are necessary to go from the Atlantic to the Pacific, and also save the coal that is necessary to go from the Atlantic to the Pacific?

Admiral BOWLES. I do think so, Senator.

Senator JONES. But that was not taken into account in that program?

Admiral BOWLES. Oh, I think the types of vessels we are building are quite capable of taking care of that.

Senator JONES. Did your program include enough vessels to take care of that phase of the situation?

Admiral BOWLES. It did.

Senator JONES. And the same might be suggested with reference to oil. We need a lot of oil in Alaska and in the transportation of oil between that country and other points on the Pacific coast, and we should have vessels to furnish that transportation.

Admiral BOWLES. I have given particular attention to the subject of oil and its transportation, because I have considered it one of the important military elements; and if you will be kind enough to let me explain that situation to you in executive session I shall be very glad to do so.

Senator JONES. I just wanted to get the general outline of your program to see if you had taken care of those matters.

Admiral BOWLES. I have taken care of oil, because that has to be taken care of by specific ships.

The CHAIRMAN. This item about the price of Douglas fir you will furnish us later, Admiral?

Admiral BOWLES. I will.

The CHAIRMAN. We had better go into executive session now, unless there is something else.

Admiral BOWLES. I would like to say one thing, Senator, before you go into executive session. I will remind you I have had to deal with all the contracts made with the Fleet Corporation. Some of those contracts are poor contracts, from the point of view of the United States, and some of them are good ones. Some of the contractors, of course, are doing well and some are doing poorly; some are acting in good faith and some are, naturally, trying to take advantage of the Government.

Senator NELSON. Would you have any objection to telling us which is which of these classes?

Admiral BOWLES. I certainly would have objections.

Senator NELSON. In executive session?

Admiral BOWLES. Not in executive session.

Senator NELSON. I think we ought to know who are trying to hold up the Government in one way or another.

Admiral BOWLES. It has been my duty to deal pretty rigorously with that class; but I imagine that some of them will come here and have something to say, and I hope that the Senators will give me an opportunity to be present, to question them, and to make any proper answer on the part of the Government.

Senator BANKHEAD. I think that is entirely proper.

Senator SHERMAN. Admiral, the labor situation on the Pacific coast is reported to me as having been very acute, resulting in a suspension of operations of practically 50 per cent of the Washington State sawmills for at least six weeks during the past summer. It is reported further that the movement has been directed largely by the I. W. W. I am advised that the American Federation of Labor and the I. W. W. have now got together and are insisting on the application of the eight-hour day in the Northwest. The northwestern mill operators are faced by the alternative of eight hours work with ten hours pay. In all possibility the southern mill operators, in the yellow-pine country, must face the same condition, and they suggest that is a matter of great difficulty that is not yet settled.

Secretary of Labor Wilson and the Secretary of War have arranged a conference for some time early in January, I believe, with a view to arriving at some definite rule to be followed. This statement from a person who is interested out in that country would corroborate what you just stated a while ago.

I want to ask you whether in the bill you have suggested for commandeering certain local transportation companies you have considered the question of the conflict of authority between various departments. I ask that in view of the conditions in Davenport, Moline, Rock Island, and East Moline. The military authorities there have commandeered the local transportation company, running

across the Mississippi River to the Rock Island Arsenal, serving 7,000 or 8,000 employees at the arsenal, and the Rock Island Street Railway Co. at one end; and the Navy Department, which will have some very large contracts there in process of execution, has commandeered the other end, a local transportation line that has a connecting system. Many of those on the naval work and those at the arsenal use both lines coming and going. They have appealed to me to try to adjust the matter. I have been over to the departments, but there is a deadlock in the transportation there caused by the conflict of authority between the military and naval departments.

It would be well to keep that in mind, because there is a great deal of conflict between the departments that has resulted in embarrassment, not only here but among contractors. Would it not be well to try to adjust that by conferring with the departments here and provide against any further such conflict?

Admiral BOWLES. It certainly would, Senator. I have not put anything in this draft of the bill about requisitioning street railway transportation. I do not know how to draft such a bill, but I should like very much to urge that we have the authority, because such authority as now exists is with the War Department and the Navy Department, and we have no means, even in the places where we are entirely separate from them, of providing this transportation.

Senator SHERMAN. Would you suggest some way of settling these conflicts? The President, of course, is loaded down and could not do it.

Admiral BOWLES. Senator, I can suggest something to you in executive session.

Senator SHERMAN. Very well.

The CHAIRMAN. It apparently does not work to play both ends against the middle. If there are no other questions, we will proceed to executive session.

(After the consideration of executive business, and, at 6.15 o'clock p. m., the committee adjourned to meet at 2 o'clock p. m. on Monday, Dec. 31, 1917.)

UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.

MONDAY, DECEMBER 31, 1917.

UNITED STATES SENATE,
COMMITTEE ON COMMERCE,
Washington, D. C.

The committee met, pursuant to adjournment, at 2 o'clock p. m. in the committee room, Capitol, Senator Duncan U. Fletcher presiding.

Present: Senators Fletcher (chairman), Martin, Bankhead, Nelson, Jones, Sherman, Harding, and Johnson.

The CHAIRMAN. Mr. Hurley, the chairman of the Shipping Board, has addressed to me the following communication relative to housing facilities for shipyard employees, which will be inserted in the record at this point.

(The letter referred to is here printed in full, as follows):

UNITED STATES SHIPPING BOARD,
Washington, December 29, 1917.

Hon. DUNCAN U. FLETCHER,
Chairman Commerce Committee, United States Senate, Washington, D. C.

MY DEAR SENATOR: In view of the fact that the question of housing was only lightly touched upon during the time I was before your committee, I am constrained to write you the inclosed memorandum on the subject for the purpose of giving your committee the information which I think it should have in hand regarding the matter.

Very truly, yours,

EDWARD N. HURLEY, *Chairman.*

[Memorandum for Senate Committee on Commerce.]

One of the most perplexing problems of the war to the United States Shipping Board, the Army, and the Navy has been the lack of housing facilities for the enormously increased army of labor. The War Industries Board appointed a committee on housing, with Mr. Otto M. Eidletz, of New York, as chairman, to investigate and advise on this situation. This committee has investigated and advised on the immediate necessity of increased housing facilities, but owing to the fact that this problem had not yet reached a critical stage at the time Congress adjourned at its last session, and that no request had been made to Congress for an appropriation to provide necessary housing, Mr. Eidletz was unable to do more than suggest. The Shipping Board also had appointed an advisory committee which thoroughly investigated housing conditions at the shipyards and recommended some action toward relieving the situation, but all committees were more or less handicapped by no special financial provisions for taking care of this unlooked-for situation.

In November I appointed Mr. J. Rogers Flannery to see what could be done to help the housing troubles at the shipyards. The demand for immediate action became so apparent when the situation was thoroughly investigated that the Shipping Board decided to start construction at once at the most critical points. Hog Island will be the largest operation and $10,000,000 has been set aside for the erection of

thousands of houses to be erected in the vicinity of the Hog Island shipyard, Bristol, Pa., has also been assisted and a large community site is being constructed.

Sparrows Point, Md., has been in need of housing facilities, and the Shipping Board is helping the Bethlehem Shipbuilding Corporation (Ltd.) to purchase about 400 five and six room brick houses to care for the shiptards employees. Baltimore, which is about 10 miles from the shipyards, is cooperating with the United States Shipping Board to the fullest extent and is giving invaluable assistance in helping to place the shipyard employees in homes, rooms, and apartments.

Chester, Pa.; Wilmington, Del.; Newport News, Va.; Newburgh, N. Y., and many other shipbuilding points are being investigated and palns are under consideration for alleviating the housing situation.

We are treating the housing proposition from a very broad viewpoint, and in all cases where community sites are being planned is providing all the social, moral, and artistic features that will add to the social, moral, and physical well-being of the shipbuilding employees who will live in these communities. While protecting the investment of the Government, we are also adjusting the rents, purchase terms, etc., on such a basis that they will be within normal reach of the men who will occupy the houses.

The Shipping Board has invited the committee on housing to act as its advisory committee, has provided quarters for and is paying all salaries and clerical expenses of this committee, and is attempting to work out this housing problem along the very broad lines that it deserves, hoping that eventually Congress will realize the necessity of providing the necessary appropriation with which to take care of the housing necessities of all branches of the Government. The Shipping Board is building up this housing organization in conjunction with the committee on housing so that no time may be lost, and when Congress decides to appoint an independent housing commission with the necessary appropriation to take hold and construct the necessary housing for all branches of the Government, standard town plans will have been laid out and standard types of houses that will permit of standard dimension parts and standard materials will have been decided upon. Everything will be ready. All preliminary foundation work will have been completed. Immediate action can be assured.

About $35,000,000 will be required to carry out the contemplated housing program of the United States Shipping Board. A very considerable amount will also be required by the Army and the Navy. A bill is being prepared by the housing committee of the Council of National Defense, and I hope that it will be favorably acted upon by Congress, providing finances for the necessary housing. Housing facilities must be obtained for the large army of labor that must live where the Government's operations are being conducted on such an enormous scale, and should be coordinated and standardized in one commission for all branches of the Government.

Very truly, yours,

EDWARD N. HURLEY, *Chairman.*

The CHAIRMAN (continuing). I have also received a letter from Admiral Bowles, dated December 29, inclosing a statement containing information in regard to the American International Corporation taken from Moody's Manual, 1917 edition. That letter and the attached memorandum will also be printed in the record at this point.

(The letter referred to is here printed in full as follows):

UNITED STATES SHIPPING BOARD,
EMERGENCY FLEET CORPORATION,
Washington, December 29, 1917.

Hon. DUNCAN U. FLETCHER,
Chairman Commerce Committee, United States Senate,
Washington, D. C..

DEAR SENATOR FLETCHER: In response to the question addressed to me by Senator Johnson of California I am inclosing herewith a statement showing the information in regard to the American International Corporation taken from Moody's Manual, 1917 edition.

Very truly, yours,

F. T. BOWLES,
Manager Division of Steel Ship Construction.

AMERICAN INTERNATIONAL CORPORATION.

Incorporated November 23, 1915, in New York, under a charter broad enough to authorize it to engage in any kind of business (except banking), subject to the restrictions provided by the laws of the States and countries in which it may operate. The main object of the formation of the corporation is to create facilities for the successful promotion of American commerce and business in foreign countries. It will be its endeavor to advance the interests of American overseas trade; to develop new enterprises abroad; to finance existing enterprises and to take over, if offered, investments heretofore made by people in European countries. The corporation has its own representatives in Argentina, Great Britain, France, Russia, and China. While not controlled by the National City Bank, New York, it is closely affiliated in interest and can avail itself of the experience that institution has acquired in the establishment of foreign branches. Under the powers conferred by the Federal reserve act the National City Bank has established branches in Argentina, Brazil, Chile, Uruguay, the West Indies, Italy, and Russia and plans are under way for the establishment of other branches in the principal financial centers of South America. Through the acquisition of the International Banking Corporation by the National City Co., the bank has branches in Japan, China, Philippines, Panama, Colombia, and India. The American International Corporation proposes to utilize the information gained through these branches to further the interests of American business and to give the initial impetus to American enterprise in fields not hitherto explored by it.

The following are some of the varied interests of the corporation:

Pacific Mail Steamship Co.—In connection with its associates, W. R. Grace & Co., the corporation in December, 1915, acquired control of the Pacific Mail Steamship Co. (See General Index.)

Allied Machinery Co. of America.—In February, 1916, company acquired the entire capital stock (consisting of $100,000 common and $100,000 preferred) of the Allied Machinery Co. of America, which conducts an export business in machine tools, with its own offices in France, Italy, Switzerland, and Russia.

Uruguayan contract.—In March, 1916, the American International Corporation, in association with Messrs. Stone & Webster and the Ulen Contracting Co., took a contract to construct waterworks and sewerage systems in the towns of Salto, Paysandu, and Mercedes, Uruguay. The corporation agreed to take $4,000,000 6 per cent gold bonds of the Uruguayan Government in payment for this work, which is now well under way.

Latin-American Corporation.—The importance of thoroughly investigating propositions in South America which have been presented, and the necessity of properly supervising the work during the construction period, led to the formation of the Latin-American Corporation, in which the American International Corporation and Messrs. Stone & Webster are jointly interested.

Work in Russia.—On August 31, 1916, Frederick Holbrook, an engineer and head of the Hoobrook, Cabot & Rollins Corporation, was chosen vice president of the American International Corporation to represent its interests in Petrograd, Russia. The corporation has received orders from the Russian Government for a large amount of steel rail and other railway equipment.

Rosin & Turpentine Export Co.—This company was incorporated in June, 1916, to aid American manufacturers to investigate and develop the rosin and turpentine export business. In April, 1917, this company increased its capital stock from $300,000 to $800,000.

International Mercantile Marine Co.—During 1916 an interest was acquired in the securities of the International Mercantile Marine Co. (see General Index), which aided that company to discharge its receiver on October 6, 1916, and place its affairs in the hands of a board of directors.

United Fruit Co.—During 1916 the corporation also acquired an interest in the United Fruit Co. (See General Index.)

American International Terminals Corporation.—In July, 1916, this company was formed with $100,000 capital for the purpose of studying the problems in connection with the development of the terminal facilities of the Port of New York.

China Corporation and Siems-Carey Railway & Canal Co.—These two companies were organized in July, 1916, for the purpose of investigating the possibility of negotiating contracts for the improvement of canals and construction of railroads in China. The American International Corporation holds the controlling interest in these companies and the Siems-Carey Co., an engineering and contracting firm of St. Paul, Minn., the remainder. A contract was signed on September 30, 1916, with the Chinese Government for the construction of 1,100 miles of railway in China.

Carter, Macy & Co. (Inc.).—In August, 1916, the American International Corporation became interested in this concern, an old established firm doing business in the importation and sale of teas and having offices in China, Japan, India, and Ceylon. The American International Corporation provided additional capital and acquired a controlling interest in the business, and in this manner acquired representation in the Orient.

New York Shipbuilding Co.—The corporation in November, 1916, purchased the entire property of the New York Shipbuilding Co., Camden, N. J., and invited the International Mercantile Marine Co., W. R. Grace & Co., and the Pacific Mail Steamship Co. to join in shipbuilding operations. A new corporation, the New York Shipbuilding Corporation, has been organized in which the American International Corporation owns the controlling interest and the other two companies the remainder. In addition to $20,000,000 of contracts for ships under construction, a contract has been received for the construction of two battleships for the United States Government, for $22 900 000.

Capital stock.—Authorized and outstanding, $49,000,000 common and $1,000,000 preferred ("managers' shares"); par, $100. Of the stock, $25,000,000 common was set aside to be offered to stockholders of the National City Bank, New York, to an amount equal to their holdings of that institution's stock as of December 1, 1915. Subscriptions were to be made 10 per cent forthwith, 10 per cent January 15, 1916, and the remaining 80 per cent at the discretion of directors. Further installments of 10 per cent each were called payable June 9, July 10, and August 10, 1916, making the stock 50 per cent paid up. Preferred stock is entitled to receive out of surplus profits, dividends at the same rate as that paid on common, until 7 per cent shall have been paid or declared on both classes in any one year; thereafter preferred stock shall be entitled to receive one-fifth of any further distribution of surplus during that year and common the remaining four-fifths. Upon liquidation of the corporation and distribution of its assets, preferred shall be entitled to receive an amount equal to the par value thereof, before any distribution is made on the common stock, then common shall be entitled to receive an amount equal to the par value thereof; after which preferred stock shall be entitled to receive one-fifth of the assets then remaining, and the common the remaining four-fifths. Transfer agent: National City Bank, New York. Registrar: Farmers' Loan & Trust Co., New York. Listed on New York curb. Initial dividends of 75 cents per share on both preferred and common stocks were paid December 30, 1916.

Consolidated income account, year ended December 31, 1916.—Earnings from operations, $3,337,450; miscellaneous expenses, $908,278; foreign and domestic taxes, $447,656; net earnings, $1,981,516; interest and dividends received, $502,427; total income? $2,483,943; dividends, $375,000; surplus for one year, $2,108,943.

Consolidated balance sheet, Dec. 31, 1916.

ASSETS.		LIABILITIES.	
Investments, bonds, stocks, etc.	$23,226,559	Common stock	$24,500,000
Furniture and fixtures	40,883	Preferred stock	500,000
Cash and call loans	2,954,313	Accounts payable	2,960,339
Merchandise inventories	2,167,515	Reserve for taxes	521,262
Accounts receivable and advances	1,864,818	Surplus	1,923,539
Interest accrued receivable	148,201		
Unexpired insurance	2,851		
Total	30,405,140	Total	30,405,140

Consolidated statement of working capital, Dec. 31, 1916.

CURRENT ASSETS.		CURRENT LIABILITIES.	
Cash and call loans	$2,954,313	Accounts payable	$2,960,339
Merchandise inventories	2,167,515		
Accounts receivable and advances	1,864,818		
Interest accrued receivable	148,201		
Total	7,134,847	Total	2,960,339

Net working capital, December 31, 1916, $4,174,508.

Officers.—F. A. Vanderlip, chairman of board; C. A. Stone, president; G. J. Baldwin, senior vice president; H. D. H. Connick, Philip W. Henry, Robert F. Herrick, Frederick Holbrook, William S. Kies, R. B. Sheridan, Willard Straight, R. P. Tinsley, vice presidents; Cecil Page, secretary; T. W. Streeter, treasurer; K. F. Clark, assistant secretary; Percy Mayes, assistant treasurer, New York.

Executive committee.—F. A. Vanderlip, C. A. Stone, O. H. Kahn, Ambrose Monell, P. A. Rockefeller, T. N. Vail, William Woodward.

Directors.—J. Ogden Armour, C. A. Coffin, W. E. Corey, Robert Dollar, J. P. Grace, R. F. Herrick, Pierre S. duPont, Otto H. Kahn, R. S. Lovett, Ambrose Monell, H. S. Pritchett, Percy A. Rockefeller, John D. Ryan, W. L. Saunders, J. A. Stillman, C. A. Stone, Guy E. Tripp, T. N. Vail, F. A. Vanderlip, E. S. Webster, A. H. Wiggin, Beekman Winthrop, William Woodward.

Annual meeting, first Wednesday in April.

General office, 120 Broadway, New York.

New York Shipbuilding Corporation (controlled by stock ownership).—Incorporated November 28, 1916, in New York; successor to New York Shipbuilding Co. (see Manual for 1916, industrial and public utility volume, p. 3149). The entire property of the latter company had been purchased in November, 1916, by the American International Corporation, in connection with the International Mercantile Marine Co., W. R. Grace & Co., and the Pacific Mail Steamship Co. The American International Corporation owns a majority of the stock of the new corporation. The arrangement between the four concerns participating in the enterprise provides that a certain portion of the capacity of the yard shall be devoted to the construction of ships for these companies at cost plus a percentage basis. Business is the manufacture and construction of ships, marine engines and boilers. The corporation has a large modern shipbuilding plant at Camden, N. J., the property including 163½ acres of land, with 4,700 feet of water front on the Delaware River. There are five shipways equipped and two additional large ways under construction.

Capital stock.—Authorized and outstanding, 200,000 shares of no par value. A majority of the stock is owned by American International Corporation.

Bonded debt.—$7,500,000 first sinking fund 5s; due November 1, 1946. Authorized, $25,000,000.

Officers.—George J. Baldwin, chairman of board; S. M. Knox, president; H. A. Magoun, first vice president; N. de Taube, second vice president; J. T. Wickersham, secretary and treasurer; Cecil Page, assistant secretary; A. G. Connell, assistant secretary and assistant treasurer; A. D. Brigham, assistant secretary; Percy Mayes, assistant treasurer; H. J. Smith, assistant treasurer.

Executive committee.—George J. Baldwin, P. A. S. Franklin, Lawrence H. Shearman.

Directors.—George J. Baldwin, Joseph A. Bennett, P. A. S. Franklin, Joseph P. Grace, E. W. Harden, Robert E. Herrick, W. S. Kies, S. M. Knox, Ambrose Monell, William F. Morgan, James H. Perkins, L. H. Shearman, Charles A. Stone, E. P. Swenson, H. H. Wehrhane.

Annual meeting, third Wednesday in March, at 120 Broadway, New York.

General office, Camden, N. J.

(Moody's Manual of Railroad and Corporation Securities, 1917. Industrial section, pp. 74, 75, 76, 77.)

American International Corporation (see also statement on p. 74).—Common stock listed.—Common stock of company was listed on New York Stock Exchange on July 5, 1917.

(Moody's Manual of Railroads and Corporations Securities, 1917. Industrial section, p. 2549.)

The CHAIRMAN (continuing). When we adjourn to-day, if there is no objection, we will adjourn to meet on Wednesday next, January 2, 1918, at 2 o'clock p. m.

Senator JONES. I suggest, Mr. Chairman, that we then have Admiral Bowles resume the stand in connection with one or two matters.

The CHAIRMAN. Yes; we can have Admiral Bowles notified to be here on Wednesday afternoon at 2 o'clock.

Mr. Page, we will now proceed with you. You are one of the commissioners of the Shipping Board?

STATEMENT OF HON. CHARLES R. PAGE, MEMBER OF THE UNITED STATES SHIPPING BOARD.

Mr. PAGE. Yes, sir; and I am also a trustee of the corporation.

The CHAIRMAN. When did you take office, Mr. Page?

Mr. PAGE. Well, I was sworn into office in Seattle, on I think it must have been about the 18th or 20th of October. I arrived here on the 26th, and took up my duties on the 27th.

The CHAIRMAN. Will you give the date and place of your birth, and the place of your residence, Mr. Page?

Mr. PAGE. I was born in San Francisco, Cal., on the 24th of May, 1878. My place of residence is in Alameda, Cal.

The CHAIRMAN. What had been your business or occupation prior to becoming a member of the Shipping Board?

Mr. PAGE. Well, after leaving college, I went to sea for a short time, and then went into the business of marine insurance; I have been in the marine insurance business practically ever since.

Senator NELSON. In what capacity did you go to sea?

Mr. PAGE. I went to sea as a passenger in a trading ship, for the purpose of acquainting myself, as well as I could, with the practical handling of a vessel, and with navigation. At that time it was my purpose to go into admiralty law practice. So, although I was a passenger in that ship, I did much of the work——

Senator NELSON (interposing). Was it much of a trip that you made?

Mr. PAGE. Six months.

Senator NELSON. What was the route of the ship?

Mr. PAGE. I went from New York out to Yokohama, around the Cape of Good Hope. After that experience, returning to the United States, I went into marine insurance and spent about six months, I believe it was, in my father's office; he was an admiralty attorney; and I then went into the marine insurance business and I have spent my entire life in that, with the exception of about six months, which I spent with a firm of shipowners in San Francisco.

The CHAIRMAN. What firm was that?

Mr. PAGE. Hind, Rolph & Co. was the firm. I have been with the Firemen's Fund Insurance Co. of San Francisco ever since.

The CHAIRMAN. Does that business of marine insurance requirea knowledge of the construction of ships?

Mr. PAGE. It does not require the knowledge of an expert; it calls for a practical working knowledge of those things, not the exact knowledge of a technical expert; no.

Senator NELSON. Do they not base insurance largely on Lloyds, or what I would call the "American Lloyds"?

Mr. PAGE. The insurance of large over-seas vessels is basedn upo their classification, principally with Lloyds register, the British classification society, but there are a great number of other factors also.

Senator NELSON. Well, we have another in this country; what is it called?

Mr. PAGE. The American Bureau of Shipping is the corporate name, I believe.

Senator NELSON. And insurance is based upon the rating of those two boards, is it not?

Mr. PAGE. That is one of the important elements that enter into marine risks——

The CHAIRMAN. They classify the risk?

Mr. PAGE. They classify the risk—may I explain in detail what I understand to be the purpose of those societies?

The CHAIRMAN. Yes; certainly.

Mr. PAGE. They exist for the examination of plans for the building of ships, for the approval of the material that goes into the ships, and for the supervision of the building of ships. After the ships have been built under the supervision of an officer of one of those societies they receive a class in that society, in that register; it is technically known as a register society. In order to maintain the class, the owner of the ship has to submit his vessel to surveys at definite periods and has to make repairs which are satisfactory to the society.

Now, the marine underwriter who is asked to insure a risk on a vessel that he does not know and has never seen, refers to the book which is published by these societies, containing all the particulars of the vessel, the length, beam, depth, tonnage, power, master, owners, all the particulars; and she carries in that book a definite rating. That is one of the important elements upon which the judgment of the underwriter is based.

The society in no sense controls the classification of risks, the determination of rates, or anything of that sort. It is a bill of health for a vessel.

The CHAIRMAN. The classification of the ship itself?

Senator NELSON. Are you accustomed to going and examining ships personally before you effect an insurance?

Mr. PAGE. Well, it is very difficult to answer that question categorically. It depends a great deal upon the vessel and the trade for which she is proposed. It is quite customary to accept risks on the larger and better vessels without an examination; the smaller and somewhat inferior vessels, or the vessels in the more dangerous trades, are generally examined by a technical representative of the underwriter.

The CHAIRMAN. Did you have much to do with the American Bureau of Shipping?

Mr. PAGE. Not a very great deal, no. The American Bureau of Shipping has not been nearly so prominent in the business of marine insurance as the Lloyd's Register of British and Foreign Shipping, which is the great British Society.

The CHAIRMAN. Yes, I understand.

Mr. PAGE. I have had dealings with their representatives, however.

The CHAIRMAN. The effort to get the American Bureau of Shipping somewhat on the basis of Lloyds is comparatively recent, is it not?

Mr. PAGE. Yes; it is within the last year or two that new blood is being infused into it.

The CHAIRMAN. Do you come in contact with the American Bureau of Shipping now in your work?

Mr. PAGE. In my work here?

The CHAIRMAN. Yes.

Mr. PAGE. I have not.

The CHAIRMAN. What have you to say regarding the present organization of the Shipping Board and the Emergency Fleet Corporation? Do you approve, or would you make any changes?

Mr. PAGE. As far as the Fleet Corporation is concerned, I may say that when I came to Washington, about the 1st of November, that was previous to the amendment of the by-laws; so that I have had a share of the responsibility for the amendment of the by-laws which I conceive to be in the logical and proper direction. I believe that the Emergency Fleet Corporation is in a good, healthy condition; I think its by-laws and its organization are such now that—well, almost absolute powers are in the hands of its president.

Senator NELSON. What branch of the work, if any, is assigned to you?

Mr. PAGE. There has been no definite assignment of work to me, Senator Nelson; and my activities, because of the fact that I have had to do with shipping and shipping men, have been somewhat catholic. I have had to do with a great many ship owners who have come to the board to deal with questions arising under the requisitioning program. I have especially had charge, during the last month, of applications to transfer vessels to the American flag from foreign flags. I have had something to do with negotiations looking toward the acquisition of foreign tonnage now in foreign ports, and I have had something to do with the board's plans to man vessels.

The CHAIRMAN. Well, coming back to the original question, will you state whether or not you approve of the present organization of the Shipping Board and the Emergency Fleet Corporation?

Mr. PAGE. I do.

The CHAIRMAN. If there are any changes which, in your judgment, ought to be made in either of those organizations the committee will, of course, be very glad to hear your suggestions on that point.

Mr. PAGE. I should not hesitate to offer them, but I think that the Fleet Corporation has been put into a thoroughly healthy condition.

The CHAIRMAN. Did you have anything to do with the establishment of these plants at Hog Island and Bristol and Newark, of the International, the Merchant, and the Submarine companies, respectively?

Mr. PAGE. Nothing whatever.

The CHAIRMAN. I was going to ask you about the advantages of establishing those great enterprises close together in that particular region, and the disadvantages. Perhaps you have some views on that subject anyhow?

Mr. PAGE. I do not know as I quite understand the nature of your question.

The CHAIRMAN. What would you say were the advantages in establishing a great shipyard at Hog Island, at enormous expense to the Government, and another at Bristol, Pa., less than 50 miles away, and another at Newark, N. J.? Do you think that a wise thing to do, all conditions considered? The crowded condition of that region as to industrial activities, the difficulty of housing workmen, and the climatic conditions—the fact that in certain months of the year they can not work in that climate, particularly out in the open on ships—and transportation questions also; would you regard it as a wise thing to do to establish those three plants there?

Mr. PAGE. I do not believe that I am sufficiently familiar with the reasons for having established those plants there to give you an opinion, that would be entitled to very much consideration on that point. Offhand, I would say that it seems to me that in establishing shipyards of that kind they must be established close to rail connections. Obviously, they must be on deep water, and they must be in close proximity to a labor market. Now, the particular conditions that governed these cases I am not familiar with.

Senator NELSON. What shipyards have you on the Pacific coast? Will you please name them and give their localities?

Mr. PAGE. Since I left California I understand that there has been one established at San Diego, or one projected at San Diego. I am starting at the south now.

Senator NELSON. Has there been a contract made with them? Has the Shipping Board or the Fleet Corporation made a contract with that company?

Mr. PAGE. I know nothing of it officially. I have not seen any record of it in our reports, but I have seen in the newspapers——

Senator NELSON (interposing). What other shipyards are there on the coast?

Mr. PAGE. At Long Beach, which is the next most southerly port——

Senator NELSON (interposing). Is that for steel or for wooden ships?

Mr. PAGE. Both of these would be for steel ships; there are two; what is known as the California Shipbuilding Co., which was established for the purpose of building submarines for the Navy; it is an adjunct of the Electric Boat Co., I believe. It has now, as I recall, three contracts for building merchantmen; and the Craig Shipbuilding Co., which has no contracts for the Government, but which has a couple of small steel vessels, about 3,500 or 4,000 tons, under requisition.

Senator NELSON. Are those last shipyards that you have named in San Francisco Bay?

Mr. PAGE. No, they are at Long Beach, which is near Los Angeles; it is 45 minutes from Los Angeles.

Senator NELSON. Yes.

Mr. PAGE. And at San Pedro, which is a contiguous port, also about 45 minutes from Los Angeles.

Senator NELSON. That is another place where they have tried to make a harbor out of the whole cloth, is it not?

Mr. PAGE. That is right across the bay; they have a good harbor there now.

Senator JOHNSON. They made the harbor, too, Senator Nelson.

Mr. PAGE. They have two small wooden shipyards there. I saw all of these yards before I came here.

Senator NELSON. Take the shipyards at San Pedro; is there any timber in that vicinity?

Mr. PAGE. None at all.

Senator NELSON. And they are building wooden ships?

Mr. PAGE. Yes.

Senator NELSON. Where does that timber come from—from Washington?

Mr. PAGE. All of it comes from the Columbia River, or Washington.

Senator NELSON. What other yards are there?

Mr. PAGE. At San Pedro there is also the Los Angeles Shipbuilding & Dry Dock Co., whose plant is located on what was practically a marsh when the contract was let last May, and they already have launched a ship. They have four ways.

Senator NELSON. Have they a contract with the Government?

Mr. PAGE. They have 14 ships under contract, according to my recollection.

Senator NELSON. Are they wood or steel?

Mr. PAGE. They are steel. It is an excellently organized plant.

Senator NELSON. Let me ask you about that: Was that yard in existence before the Government contract was made?

Mr. PAGE. No.

Senator NELSON. The yard was a part of the contract?

Mr. PAGE. Well, the Government is not paying for the yard.

Senator NELSON. But there was no yard before the contract was made. The Government is not advancing any money for it?

Mr. PAGE. No; but if it had not been for the Government there would not have been a yard there, because there was no reason for having shipbuilding facilities there, except to carry out the Government's program and meet the requirements of the Government.

The CHAIRMAN. The company builds its own plant?

Mr. PAGE. The company builds its own plant, and the Government is not interested in plant extension, or plant projection, or anything; it is without assistance. It has 14 contracts, I believe. They first had 4, and I believe they now have 10 more.

Senator NELSON. For steel vessels?

Mr. PAGE. For steel vessels of 8,800 tons each.

The CHAIRMAN. And you say they are progressing very well?

Mr. PAGE. Excellently.

Senator JOHNSON. One ship has been launched, has it not?

Mr. PAGE. They have launched a ship in December.

Senator JOHNSON. And three of them have proceeded almost to completion, have they not?

Mr. PAGE. Yes.

Senator NELSON. Going north, what is the next shipyard?

Mr. PAGE. San Francisco Bay is the next. In San Francisco Bay there are quite a number of shipbuilding plants; principally steel. The largest is the Union Iron Works, which has five slips in San Francisco and five or six across the bay.

Senator NELSON. Have they contracts with the Government?

Mr. PAGE. Not with the Emergency Fleet Corporation.

Senator NELSON. That is what I mean.

Mr. PAGE. They have with the Navy; but they were so largely filled up on private contracts; as yet, they have quite a lot of private contracts on their hands, so that the Fleet Corporation has not been able to place anything with them.

Senator NELSON. Those private contracts are a part of what the Government has requisitioned, are they not?

Mr. PAGE. Yes; the Government has requisitioned them; but when you said "contracts," I thought you meant initial contracts.

Senator NELSON. What others are there?

Mr. PAGE. Then, in addition to the Union Iron Works, which is a very well-organized plant, there is the plant of the Moore & Scott Iron Works, which has a number of vessels requisitioned, and I think they have contracts with the Fleet Corporation now for, according to my recollection, 10 ships more.

Senator NELSON. Steel or wooden ships?

Mr. PAGE. Steel; they are ships of 9,400 tons.

Then there is another plant, the Hanlon Dry Dock & Shipbuilding Co. which has two requisitioned contracts.

Then there is a wooden shipyard up the bay, which has two or three—they have been invited to tender for two wooden ship contracts; and since I left California there has been another shipyard established up at Benicia, which I believe has contracts for the Fleet Corporation. That would be the Pacific Coast Ship Building Co., and it has ten contracts, but as yet it is nothing but a site; there is no yard established there yet.

Senator NELSON. There is no yard there yet; it has a contract. Has the Government helped to build the yard?

Mr. PAGE. I am not familiar with the conditions as to that yard.

Senator NELSON. Well, proceed north. What is the next ship yard?

The CHAIRMAN. Are those wooden ships?

Mr. PAGE. They are steel ships; 8,800 ton cargo ships.

The next yard is at Humboldt Bay, where there are four ships being built. The Hammond Lumber Co. has a contract there that calls for four wooden ships.

Senator NELSON. Were those yards already established?

Mr. PAGE. The ones I have just referred to?

Senator NELSON. The ones at Humboldt Bay?

Mr. PAGE. Yes.

Senator NELSON. They were in existence before?

Mr. PAGE. Yes, they have built small wooden vessels there for a great many years.

Senator NELSON. They were mainly coasters, I suppose?

Mr. PAGE. Yes, coasters and similar small vessels.

The next yard to the north of that is at Coos Bay, in Oregon.

Senator NELSON. Was there a yard there before the Government let the contract?

Mr. PAGE. Yes.

Senator NELSON. A wooden shipyard?

Mr. PAGE. A wooden shipyard; it is right in the heart of the lumber district.

Senator NELSON. Yes; there is plenty of lumber around there.

Mr. PAGE. Yes, plenty of lumber of all sizes. The firm of Kruse & Banks have been building ships for a good many years there on the Pacific Coast.

Senator NELSON. Have we a contract with them—and when I say "we" I mean, of course, the Emergency Fleet Corporation?

Mr. PAGE. Yes, for four wooden ships.

The next yard north of that is at a place called Tillamook, which has a small harbor in the timber region; they have a contract for one ship.

Senator NELSON. Was there a yard there before the contract was made?

Mr. PAGE. There was not a yard there; there was a man there who built barges and small bessels; I think that he is the man that has this contract. I have not seen that place.

Then the next point north of that is the Columbia River. On the Columbia River—I have not been to Astoria recently, but my recollection is that there are two, if not three, wooden ship yards there with contracts from the Fleet Corporation.

Senator NELSON. That is between the mouth of the Columbia and the Willamette River?

Mr. PAGE. Yes; but it is almost at the mouth of the river; it is the first port that you strike on the Columbia River.

Senator NELSON. You say there are two yards there?

Mr. PAGE. Two, and perhaps three.

Senator NELSON. Are they wooden shipyards?

Mr. PAGE. They are wooden shipyards.

Senator NELSON. What is the name of the company?

Mr. PAGE. The McEachern Ship Co., I think it is called; it has contracts for 10 or 12 wooden ships. And there are one or two others there. My information on that point is not exact. Proceeding up the river, the next place is called Columbia City.

Senator NELSON. That is on the Willamette River, is it not?

Mr. PAGE. No; still on the Columbia River.

Senator NELSON. I mean, is it above or below the junction of the Willamette River?

Mr. PAGE. Below; there is a yard there owned by the Sommerstrom Shipbuilding Co., with contracts for four wooden vessels, of the Hough type, according to my recollection.

The next yard is the St. Helens Shipbuilding Co., which is pretty close to the junction, I think, of the Willamette and Columbia Rivers.

The CHAIRMAN. What do you mean by the Hough type of vessels?

Mr. PAGE. There are several types of wooden vessels that have been contracted for by the Fleet Corporation. The type that is predominant is known as the Ferris type, a 3,500 ton vessel, which was deisgned by Mr. Ferris. There is also a rather peculiar type of vessel, that, in technical language would be known as a "sharp scow" like a scow schooner; it has a very peculiar under-water-body; it was designed by a man named Hough on the Pacific coast, for the lumber trade, primarily. The advantage claimed for it is that it can use short timbers, and that it does not call for so much hand work as ordinary wooden-ship building, so that you can figure to use house carpenters and bridge builders on it. It is a very distinct and rather extraordinary looking type of vessel, and there are quite a number of those contracted for on the Pacific coast.

The CHAIRMAN. Of what tonnage are those vessels?

Mr. PAGE. About 3,500 tons. Then there are a few of the wooden-ship builders who are being permitted to build on the types that they had themselves developed in commercial practice. I think this was a very wise permission; and some of those vessels, notably the ones produced at Gray's Harbor, run up to 4,000 tons. So you have those two distinct types, the Hough type and the Ferris type, put out by the Corporation and——

Senator NELSON. (Interposing). The Ferris type is the normal type, the type commonly used, is it not?

Mr. PAGE. Well, it is the type of which most will be produced.

Senator NELSON. That is what I mean. I call it the "normal type" as distinguished from the others.

Mr. PAGE. Yes; the others are exceptions.

Senator NELSON. Yes; that is what I thought. Now, proceed further along there.

Mr. PAGE. Well, the St. Helens Shipbuilding Co., at St. Helens, Oreg., is an old established concern.

Senator NELSON. Is that on the coast or on the Columbia River?

Mr. PAGE. It is on the Columbia River. My recollection is that it is just below the confluence of the Columbia and the Willamette Rivers.

Senator NELSON. Have they any contracts?

Mr. PAGE. Two.

Senator NELSON. Two contracts for wooden vessels?

Mr. PAGE. For wooden vessels, two of the Ferris type ships. They are an old established yard; they have been building for a number of years. Then, at St. Johns, Oreg., which is on the Willamette River, there is the Grant-Porter-Smith Corporation, a corporation made up of some railway contractors and others; I do not think they have had any previous experience in shipbuilding; they have contracts for, I think, about 10.

Senator NELSON. Ten wooden ships?

Mr. PAGE. Ten wooden ships of the Hough type.

Senator NELSON. And they had never been in the business before they got these contracts?

Mr. PAGE. I think not.

Senator NELSON. They were organized——

Mr. PAGE. After the emergency.

Senator NELSON. They were organized for this purpose?

Mr. PAGE. Yes. I find quite a number there, just as there are in the steel business on the Pacific Coast, who never were in the shipbuilding business before in their lives. They came in——

Senator NELSON (interposing). As a matter of patriotism?

Mr. PAGE. From a desire to help out.

Senator NELSON. Yes.

Mr. PAGE. They are building a considerable ship yard there which is financed by the Government.

Senator NELSON. The Government advanced the whole thing?

Mr. PAGE. The Government is paying the cost——

Senator NELSON (interposing). Building the yard for them, practically?

Mr. PAGE. Not only practically; in fact.

Senator NELSON. In fact?

Mr. PAGE. They are the agents of the Government in building that yard.

Senator NELSON. Yes. Now, we found out about that Delaware corporation, that they are the agents of the Government; they get $6,000,000 or $7,000,000. Do you know how much these people are to get for allowing their name to be used in connection with this yard?

Mr. PAGE. I do not, Senator Nelson; I am not familiar with the details of the contracts. I know that they have got their ships on the lump-sum basis; my recollection is $85 a ton, which is very much less than the——

Senator NELSON (interposing). Average.

Mr. PAGE. Average for the wooden ships.

Senator NELSON. But the Government builds a plant for them, and after it is built, I suppose it gives it rent free, does it not?

Mr. PAGE. It belongs to the Government after they are through.

Senator NELSON. Do they advance anything toward the construction of it, or does the Government pay for the wages and pay for the material as they go along with the work?

Mr. PAGE. My understanding—but I would like to have you appreciate that I have not examined this contract myself—my understanding is that the Government meets the pay rolls and the material bills, and everything, as they go along.

Senator NELSON. Yes; it is like this other contract of the concern in Delaware?

Mr. PAGE. I think so.

Senator NELSON. The only difference is that this is for wooden ships and the Delaware contract is for steel ships?

Mr. PAGE. I think so.

The CHAIRMAN. The American-International Co.?

Senator NELSON. The American-International Co.; yes, that is what I was thinking of.

The CHAIRMAN. What is the name of that company you were just speaking of, at St. Johns, Oreg.?

Mr. PAGE. The correct name, I believe, is the Grant-Smith-Porter-Guthrie Co.

Senator BANKHEAD. Do you know what percentage of profits they get on the cost of the work?

Mr. PAGE. I do not, Senator Bankhead.

Senator BANKHEAD. Is it 10 per cent?

Mr. PAGE. I really do not know; I can not answer that question.

Senator BANKHEAD. They get some percentage, do they not?

Mr. PAGE. Oh, yes; I should judge that they figured to get 10 per cent. But I am not familiar with the contract myself.

Senator NELSON. Will you be kind enough to look that up, and let the committee know how much rake-off they get on the deals? I do not mean now, but you can put it in the record afterwards.

Senator HARDING. Mr. Chairman, we have those contracts on file with the committee.

Mr. PAGE. Yes; they are on file with the committee.

Senator NELSON. Yes, I know; but you can get the figures better than we can.

Senator JONES. We have a synopsis of those contracts.

Senator NELSON. Not of that particular contract, I think.

Senator JONES. I understood that we had a synopsis of all these contracts.

Senator NELSON. We have a schedule of them, but I believe that Admiral Bowles only gave us three of the typical contracts.

Senator JONES. I understood that he gave us a synopsis of all of them.

Senator NELSON. Perhaps there is that information on file. But what we want to know, Mr. Page, is how much that company gets for practically using their name and reputation, and whatever it is.

Mr. PAGE. Yes; they are people with an organization, not a shipbuilding organization, but a large contracting organization.

Senator NELSON. Yes. We want to know what the cost of getting the use of good names for the Government is.

Senator HARDING. Mr. Page, you are connected more or less with the operating department of the Shipping Board, are you not?

Mr. PAGE. No, sir; I am not.

Senator HARDING. Are you at all familiar with that phase of the work?

Mr. PAGE. Only in the most general way. Do you mean with the actual operations of the board?

Senator HARDING. Well, perhaps I can get at what I want by asking further questions. Do you know whether we have increased or decreased the efficiency of the ships requisitioned in the trans-Atlantic service?

Mr. PAGE. I do not, Senator Harding. I can only venture an opinion.

Senator HARDING. Do you know whether the time of the cargo carrier has been lengthened or shortened since coming under the direction of the board?

Mr. PAGE. No; I do not know as to that. I have not seen the period of the vessels' stays in port. I think, if I may express an opinion rather than a statement of my own knowledge, that it would be natural at first that there should be a slow-up, due to the change in the existing organizations.

Senator HARDING. Are you at all familiar with the tie-up on the other side—the inability to disembark our cargoes?

Mr. PAGE. In France?

Senator HARDING. Yes.

Mr. PAGE. No, sir; I am not; only the merest hearsay.

Senator HARDING. You know that condition is bad?

Mr. PAGE. I have heard that it is a very serious condition. I have heard of vessels being delayed 20 or 30 days.

Senator HARDING. You are not prepared to assign the reasons therefor?

Mr. PAGE. No, sir; because I do not know.

Senator HARDING. Who would be the best authority on that subject in the Shipping Board?

Mr. PAGE. I should judge that Mr. Colby would probably know more about that at first hand than anybody else; and if not Mr. Colby, Mr. Carry is the man through whom all of the information passes.

Senator NELSON. If you will pardon me, Senator Harding, I noticed in the newspapers a short while ago an account of where our troops had been kept from landing 15 days; and it was said that that was because they were using all of the cars and everything of the kind to ship troops down to Italy.

Senator HARDING. I wanted to ask another question, Mr. Page: Do you have anything to do in your department with the inspection bureau?

Mr. PAGE. Do you refer to the men who are inspecting construction?

Senator HARDING. No, the men who are passing upon the dependability of a ship for departure; the regular bureau of inspection.

Mr. PAGE. No; I have nothing to do with that; that would also come under the Director of Operations, Mr. Carry.

Senator NELSON. I presume that would come under what they call the Steamboat-Inspection Service.

Mr. PAGE. No, the Steamboat Inspection Service only examines into the vessel when she—for instance, at stated periods, when her boilers have to be examined; when her certificate of inspection expires, the Steamboat-Inspection Service examines the condition of the vessel, but under ordinary conditions they do not, unless there is some complaint about her condition; then they would examine it.

Senator HARDING. Now, that is what I am trying to get at. This bureau passes upon the eligibility of a ship to make a voyage, does it not—the Steamboat-Inspection Bureau?

Mr. PAGE. No; the Steamboat-Inspection Bureau, or department, or whatever it is known as, is a bureau of the Department of Commerce. The scope of its duties is two-fold: One is to attend to the physical condition of the ships, and the other is to supervise the personnel. Every American ship is licensed. She is licensed to carry a certain number of passengers; she is licensed to have a certain steam pressure in her boilers; she has to have a certain number in her crew. When a vessel comes out from the builder's hands she is examined by the Steamboat Inspectors.

Senator HARDING. Yes, I understand.

Mr. PAGE. And they designate all those things in her certificate of inspection; that certificate of inspection has a definite period to run. The steamboat inspectors do not see that ship again, in the ordinary course of events; they may have reason to go and check her up; but in the ordinary course of events, they do not see that ship again until her certificate of inspection is about to expire.

Senator HARDING. Then in the beginning the ship must have a certificate from those——

Mr. PAGE (interposing). She must have a certificate before she can be cleared.

Senator HARDING. Would you not think that we were duplicating work to have another set of inspectors in our ship building yards to pass upon ships?

Mr. PAGE. No; I think it is essential that you do have a set of inspectors, because the steamboat inspector, in the nature of things, can not examine a ship as critically as a man who will examine her as she is being built—not when she is built, but as she is being built. It is the duty of the inspector in the yard, just as it is the duty of the inspector for the classification society, to pass upon the material; to see that the steel plates that go into the ship bear Lloyds's mark; that they are of the proper thickness and the proper weight; to see that the riveting is all right; to see that every detail of the ship as she is constructed is proper. Now, no man, after a ship is completed, can go and certify as to those things.

Senator HARDING. Yet it must have his certificate before it can sail?

Senator NELSON. No; not the inspector in the yard.

Senator HARDING. I understand; but it must have the certificate of the steamboat inspector. The point I am getting at is this: Would it not be a practical thing to enlarge our Steamboat-Inspection Service and put this work entirely in the hands of such a force of practical men?

Mr. PAGE. I believe it could be done to better advantage in the same way that it is being done. I think that the way it is being done is more elastic.

Senator NELSON. You see, Senator Harding, the difference between the two is this: That steamboat inspection is for all vessels that fly the American Flag, while this inspection is for the vessels that are constructed under the Emergency Fleet Corporation, whether requisitioned or otherwise. Your inspection is limited to that, while the other covers all of our shipping, and has been in existence for many years under the Department of Commerce.

Senator HARDING. I understand that. The point I am trying to get at is that this long-established Steamboat-Inspection Service must pass upon a vessel before it can go to sea. And I was wondering why it would not be a good practical thing to have that inspection service in charge from the beginning of the ship, if it is the final authority?

Mr. PAGE. Well, I should not say that it it not practical. Of course, my ideas are possibly founded on what prevails in ordinary times. Under ordinary conditions the buyer of a vessel has his own inspector in the yards; he is not going to be satisfied with the report of somebody else; he has his own inspector in the yards. The classification society also have their own inspector on the job. Now, the minute you return to normal conditions those conditions are going to return.

Senator HARDING. No; I am thinking about——

Mr. PAGE (interposing). You are thinking of the extraordinary conditions, of course.

Senator HARDING. That is the very thing I am trying to get.

Mr. PAGE. But then you will simply have to extend your Steamboat-Inspection Service to cover this period of emergency.

Senator HARDING. Exactly so. Since they are the final authority when the ship leaves the docks, I am wondering why they should not be the proper men to have this force on the job; and the force is necessarily made up of practical shipping men, is it not?

Mr. PAGE. Yes; they are all practical men; distinctly practical men.

The CHAIRMAN. There is a full set of rules and regulations issued by the Commissioner of Navigation, and a body of laws on the subject.

Mr. PAGE. I think you are referring to the rules and regulations issued by the Supervising Inspector General.

Senator NELSON. Yes; that is correct.

The CHAIRMAN. I believe it comes under the Bureau of Navigation.

Senator NELSON. Yes; and the country is divided into districts.

Mr. PAGE. Yes.

Senator NELSON. The entire country is divided into districts; it is an old service, that has been in existence for many years.

Senator BANKHEAD. You said a moment ago that you were a member of the board of trustees?

Mr. PAGE. The trustees of the Emergency Fleet Corporation.

Senator BANKHEAD. Emergency Fleet Corporation. Will you state exactly what your duties as trustee are?

Mr. PAGE. My duties as trustee are to attend at meetings when called.

Senator BANKHEAD. Meetings of——

Mr. PAGE. Meetings of the trustees called by the President, or the regular meetings of the trustees, to consider questions of policy. Otherwise I have nothing whatever to do with the internal affairs of the Emergency Fleet Corporation.

Senator NELSON. I should think, Mr. Page, that where there are so many of you on the corporation as trustees, they would distribute some branches of the work to each of you, assign routine work to each of you; would not that keep you busy?

Mr. PAGE. We are pretty busy, anyhow, Senator Nelson, without doing that. No; the work of the Emergency Fleet Corporation is distinctly in the hands of its paid executives. The trustees, as members—who happen to be also members of the Shipping Board—have nothing to do with the conduct of the affairs of the corporation, excepting to pass on questions of policy. We do not undertake——

Senator NELSON (interposing). Yes; but do you not think, in a spirit of economy—you gentlemen get good salaries as members of the Shipping Board—would it not be a good plan to assign some specific share of the work to each of you, instead of sitting up aloft generally and just meeting when you are called together by the President, practically? Would you not feel more happy if you had some particular branch of the work that would keep you busy?

Mr. PAGE. I think it would lead to confusion and interference with the——

Senator NELSON (interposing). You do not mean to say that the members of the Shipping Board could be confused, do you? [Laughter.]

Mr. PAGE. I will have to let you draw your own conclusions about that. I think it would lead to confusion in the operation of the affairs of that corporation.

The CHAIRMAN. The trustees have to do with the selection of the different heads of the different branches of the organization under the Emergency Fleet Corporation? For instance, did you pass on the qualifications of the Director of Transportation, like Mr. Carry?

Mr. PAGE. Well, you have happened to pick out an example that I am not prepared to answer about definitely because I was not here when Mr. Carry was chosen; I do not know whether his name was submitted, but in the ordinary course of affairs, the trustees of the corporation have nothing to say with regard to the employment of any of the executives; that is exclusively in the hands of the President.

Senator BANKHEAD. How many trustees are there?

Mr. PAGE. There are seven of them.

Senator NELSON. And everything in reference to the employment of help is left with him?

Mr. PAGE. It is all in his hands.

Senator NELSON. And the rest of you are simply "dummies"?

Mr. PAGE. We are consulted with regard to policy, but as to the actual operation we know nothing at all.

The CHAIRMAN. I merely used Mr. Carry as an illustration. I will pursue that further: Do you know what his business was before he came to the Emergency Fleet Corporation?

Mr. PAGE. He was engaged in the business of car manufacturing, I believe—I can not recall the name of the concern. I am not certain, but I think it was a car manufacturer.

The CHAIRMAN. Have you finished now, Senator Nelson?

Senator NELSON. No, I wanted Mr. Page to proceed North and give us the conditions of the shipyards on the coast. The last Tillamook.

Mr. PAGE. No, we have passed Tillamook.

The CHAIRMAN. And what was the other?

Mr. PAGE. The Grant-Smith-Porter-Guthrie Co.

Senator NELSON. It was that company with the ornamental name; go on.

Mr. PAGE. Then, when we go up the river, there is the Peninsula Ship Building Co., which is a wooden yard, also an old established yard.

Senator NELSON. That is above the mouth of the Willamette?

Mr. PAGE. Up on the Willamette, between St. Johns and Portland, just on the outskirts of Portland.

Senator NELSON. That is an old yard. How much of a contract have they got?

Mr. PAGE. My recollection is they had four and got four more.

Senator NELSON. Wooden ships?

Mr. PAGE. Yes, wooden ships, of their own type, their own design.

Senator NELSON. Of their own design?

Mr. PAGE. Yes; about the same size as the others, about 3,500 or 4,000 tons dead weight. That is a wooden yard. Then there is another yard, the Standifer Co., which has two yards, one at North Portland, at which they have been building some ships for private account, and another newly established yard at Vancouver, Wash., which is just across the river from North Portland.

Senator NELSON. When you speak about "new yards" I wish, without my asking you, you would let me know in each case whether they are yards that the Government has advanced money to, to help them build?

Mr. PAGE. This is not. The Peninsula Shipbuilding Co.—and that yard has received and I understand is receiving certain assistance for plant extension. The Standifer Yard, a new yard, is receiving nothing from the Government, being built out of their own funds. They have a contract for some 10 vessels, if I am not mistaken.

Senator NELSON. Wooden vessels?

Mr. PAGE. Wooden vessels. Then there is the Coast Shipbuilding Co., at Portland, an excellently organized plant.

Senator NELSON. An old plant?

Mr. PAGE. No, a new plant, built by the owners themselves, without any assistance from the Government, which had a contract for four ships and has been invited to tender and has, I think, received a contract for four more wooden ships, of the Government's design, 3,500-ton ships. That is to the best of my recollection the extent of the wooden yards.

Senator NELSON. Are there any more as you go up from there?

Mr. PAGE. There will be further up, but there are some steel yards on the Columbia River, which we will speak of. There is the Northwest Steel Co., which was building a number of vessels for the Cunard Line, and which have been requisitioned. I do not think it had any contracts for the corporation. It has an offshoot known as the Columbia Shipbuilding Co., also building large steel ships of 8,800 tons.

Then there is another yard there, known as the Albina Engine & Machine Works, which is building vessels of some 3,800 tons for Norwegian account, all of which have been commandeered under the requisition order.

Senator NELSON. Was that an established yard?

Mr. PAGE. That was not an established yard—I will put it this way: It has grown up since the European war; it has no Government business. It was at work on business for private Norwegian account.

Senator NELSON. Those vessels have been commandeered?

Mr. PAGE. They have been commandeered. They are 8-knot small vessels.

Then on Willapa Harbor there is a new yard being built, I think wholly with Government funds—I shall not be sure, but wholly or in part.

Senator NELSON. Willapa Harbor is on the coast?

Mr. PAGE. That is up the coast from Columbia River, about 60 miles up the coast from that point.

Senator NELSON. And that has been financed by the Government?

Mr. PAGE. Yes.

Senator NELSON. There was no yard there before the Government gave the contract?

Mr. PAGE. There was a small yard at Willapa Harbor, but these people did not have it. They were railroad and hydroelectric power people.

Senator NELSON. They were not shipbuilders?

Mr. PAGE. No.

Senator NELSON. They formed a company and then got the Government to advance them the money for the yard?

Mr. PAGE. Yes.

Senator NELSON. How big a contract had they?

Mr. PAGE. Ten hulls is my recollection.

Senator NELSON. Is that the same way that the Government builds a yard and pays the men and furnishes the material?

Mr. PAGE. I can only say I think so; I do not know the details of the contract.

Senator NELSON. Will you look that up and give us the information about that?

Mr. PAGE. Yes sir. I would like to say, in explanation of my ignorance of details of these contracts, that in the ordinary course of business the Shipping Board sees nothing of those contracts.

Senator NELSON. Of course, I do not blame you for that. You have not been long on the board. Most of these contracts or all of them were entered into before you became a member of the board. I am only getting the information, and am not asking these questions in the spirit of criticism, you understand.

Mr. PAGE. I do not like to appear to be so ignorant of the details of these contracts.

Senator NELSON. You look up about this matter. As I understand it the Government did everything for the plant, built it, practically, pays the men, buys the material, and they simply get a bonus of some kind.

Mr. PAGE. I think so.

Senator NELSON. Let us know what that is.

Mr. PAGE. Yes.

The next yards are located on Grays Harbor, which is about 60 miles north of Shoal Water Bay, or Willapa Harbor, as it is now known. At Grays Harbor is the plant of the Grays Harbor Motor Ship Co., which has already launched one vessel for the Fleet Corporation.

Senator NELSON. Was that an established yard?

Mr. PAGE. Yes.

Senator NELSON. Before the Government made a contract with it?

Mr. PAGE. Yes. They are receiving no Government assistance. They have extended their plant.

Senator NELSON. How many ships have they agreed to build?

Mr. PAGE. They had a contract for four, and recently they received a contract for four—I think two subsequent contracts for four each.

Senator NELSON. They are all wooden vessels.

Mr. PAGE. Wooden vessels.

Senator NELSON. They have one ship afloat, you say?

Mr. PAGE. They have already launched one for the Fleet Corporation.

Senator NELSON. That is some consolation to find one vessel has been launched by these companies.

Mr. PAGE. These people have done very well; they have a good organization and can do the work.

Senator NELSON. And it is in the midst of a good lumber country?

Mr. PAGE. It is right in the timber country.

Senator NELSON. Go ahead now.

Mr. PAGE. They have a good labor market and are far enough away not to interfere with other labor markets.

There is also in Grays Harbor another yard, which is an old yard. I think it is being extended with Government funds, operated by this same concern—Grant-Smith-Porter-Guthrie, of whom I spoke, on the Columbia River.

Senator NELSON. Kindly give us the same information about that.

Mr. PAGE. With pleasure. That finishes the yards at Grays Harbor.

Now, there is one at Olympia, the yard which was spoken of here on Saturday or Friday, the Sloan Shipbuilding Co., with a contract for 16 hulls.

Senator NELSON. The Sloan Co. is at Olympia?

Mr. PAGE. At Olympia.

Senator NELSON. I got it into my head that it was over at Seattle.

Mr. PAGE. No; at Olympia.

And then at Tacoma there is a yard of the Wright Shipbuilding Co., which was building on private account.

Senator NELSON. Not for the Government?

Mr. PAGE. No. The Seaborn Shipbuilding Co.——

Senator JONES. The Wright Shipbuilding Co. has a contract now?

Mr. PAGE. It may have now, Senator Jones, but I am speaking of the time when I visited those yards—I am visualizing the condition in October last.

Senator JONES. I understand they have two Government ships now.

Mr. PAGE. At the time of which I speak, in October, they were building for private account.

Senator NELSON. And I suppose that has been commandeered and taken?

Mr. PAGE. No, because they were wooden motor vessels below the size the Government concerned itself with. I think they were auxiliary motor schooners. Then, let us see—there is the Wright yard and the Seaborn yards at Tacoma. The Seaborn Co. was building for Government account; they had, I think, four hulls.

Senator NELSON. Were they in existence before the contract was let?

Mr. PAGE. Yes; and they are receiving no Government assistance in the plant extension.

Senator NELSON. A wooden-ship yard?

Mr. PAGE. A wooden-ship yard. Then there is the Tacoma Shipbuilding Co., which had a contract for either four or eight ships.

Senator NELSON. Wooden?

Mr. PAGE. Wooden vessels; a new yard not receiving any Government assistance, but laid out on a very extensive scale, capable of being converted into a steel yard; and then adjoining Tacoma is the yard of the Todd Shipbuilding Co., an allied corporation of the Seattle Construction Co., which I did not see, which was in process of being built at the owner's own expense.

Senator NELSON. Have they a contract?

Mr. PAGE. I think so, but I can not say. At Seattle there is the yard of Skinner & Eddy, from which one hull has already been launched, and which has been delivered to the corporation by this time.

Senator NELSON. That was an existing yard before the contract?

Mr. PAGE. They have been in existence for about two years, building for private account, and they had a number of vessels which were requisitioned, and they have also contracts with the corporation.

Senator JONES. They have launched more than one vessel?

Mr. PAGE. I think they have launched the second one.

Senator JONES. On the 22d of December a second one?

Mr. PAGE. For corporation account. They have launched ships in 64 days.

Senator JONES. They turn out one about every 30 days.

Mr. PAGE. Eight thousand eight hundred tons.

The CHAIRMAN. How many ways have they, do you know?

Mr. PAGE. My recollection is three; I could look it up for you.

Senator JONES. No; they have more than that, six or eight—I forget now.

Mr. PAGE. I will refer to some notes I have here [referring to papers.] The yard has five ways, all occupied when I was there.

The CHAIRMAN. How many contracts have they, do you say?

Mr. PAGE. My recollection is they had a contract for four hulls. There was some difficulty with that yard over the question of labor.

Senator NELSON. Are there many more yards there?

Mr. PAGE. Yes.

Senator NELSON. Give some of them.

Mr. PAGE. At Seattle there is the Skinner & Eddy plant, and then alongside of them is the Seattle Construction & Dry Dock Co., which is an old established plant with about four ways.

Senator NELSON. They have contracts?

Mr. PAGE. They have contracts which will not be reached for quite a while, however, because they are pretty well filled up with private contracts. You see, it takes some time to get these private contracts out of the way before they can reach the Government work.

Senator NELSON. They will be commandeered?

Mr. PAGE. Oh, yes, they will be commandeered. It is just tweedledee and tweedledum.

Senator NELSON. Just the same as though they were being built for the Government?

Mr. PAGE. Yes. Then there is the Ames Shipbuilding Co., which has a capacity of about four ways for big steel ships, and the J. F. Duthie Co., which has got about the same capacity, I should say, four ships; and then there was a new one, Patterson & McDonald, which I think has received a contract. That was a new yard built with the owners' own money, which has received a contract for four or six steel hulls; and had some wooden ships, I am not sure whether under contract with the Government or for private account. There is another wooden yard at Seattle, called Nilson & Kelez, and there is a little wooden yard at Tacoma which I forgot to mention, Barbare Bros., who had a contract for one hull, and have since contracted for another one, a competent concern.

Senator NELSON. Are all these last named yards wooden hulls?

Mr. PAGE. Wooden hulls.

Senator NELSON. Existing and in business before receiving contracts from the Government?

Mr. PAGE. Not financed by the Government, and were existing prior to this emergency and were not, to the best of my recollection, helped. To the best of my recollection, I have covered them all.

Senator NELSON. There is none at Anacortes?

Mr. PAGE. There is a yard over at Anacortes or Bellingham, I think it is, which is building for private account, not for the Government.

Senator NELSON. None at Port Angeles?

Mr. PAGE. No, none that I know of.

The CHAIRMAN. Mr. Page, as I understand, there are two yards on the Pacific coast built and controlled by the Government?

Mr. PAGE. There is the Grant-Smith-Porter-Guthrie yard on the Columbia River, being built with Government funds; there is the Sanderson——

The CHAIRMAN. At what point on the Columbia River?

Mr. PAGE. St. Johns. There is the Sanderson & Porter yard on Willapa Harbor. I have referred to it, I think, as Shoal Water Bay, but Willapa Harbor is the name nowadays, also being built with Government funds, and there is the Peninsula Shipbuilding Co., at Portland, in which the Government is interested in plant extension.

Senator NELSON. But the other two were entirely new yards?

Mr. PAGE. Yes, new yards.

The CHAIRMAN. And the other one?

Mr. PAGE. Let us see, what is the last one you have now?

The CHAIRMAN. Sanderson-Porter.

Mr. PAGE. Peninsula?

The CHAIRMAN. Peninsula—I have that; and then there is the Sloan Co.

Mr. PAGE. The Sloan yard was not being built with Government funds; that is, he is not acting as the agent of the Government in building that yard.

The CHAIRMAN. The Government has taken it over, have they not?

Mr. PAGE. No, I do not think they have taken it over; I think they have made certain arrangements with the backers of that concern to furnish bonds and to retire this man from the active management.

Senator NELSON. They were giving him $10,000 salary?

Mr. PAGE. He had supervision of the yard.

The CHAIRMAN. Where is it?

Mr. PAGE. An Olympia yard. There is a sort of a protectorate exercised over it.

The CHAIRMAN. With reference to the plant of the International at Hog Island, do you know where all the material must come from to build that plant—the lumber for the houses and the ships?

Mr. PAGE. I do not.

The CHAIRMAN. You are not acquainted with that?

Mr. PAGE. I am not acquainted with that.

The CHAIRMAN. Mr. Page, there have been some suggestions made to the effect that the equipment and fitting out of the wooden ships is too elaborate; have you inquired into that at all?

Mr. PAGE. I have not, Senator; no.

The CHAIRMAN. Would it not be well to take that matter up and determine whether that is the case or not?

Mr. PAGE. Yes. I have never heard the suggestion made before.

The CHAIRMAN. And what would you also think of this suggestion: Whether it would be a good idea to select two experienced shipbuilders, say, from the Pacific and from the Atlantic coasts, and one from the Great Lakes, to confer with Mr. Hayworth, with the idea of simplifying the outfitting and equipping of the wooden ships, so as not to sacrifice or lessen their efficiency in any way?

Mr. PAGE. To reduce their cost?

The CHAIRMAN. To reduce their cost and hasten their completion—that suggestion, it seems to me, is worth considering.

Mr. PAGE. I think it would be a very good thing. As to whether it would be necessary to have two men from each coast, I am not sure of that, but that kind of assistance, I should think, would be welcome.

The CHAIRMAN. These experienced shipbuilders would likely know whether it is necessary to equip a ship right up to the latest modern ideas in this emergency or whether you can get just as good a service with more simple and less elaborate equipment. That might result in saving as to cost, and at the same time hasten the completion of the ships.

Mr. PAGE. I would be surprised to learn that the equipment is at all extravagant on those ships, from the general plans.

The CHAIRMAN. I have no knowledge of it, but that suggestion has been made, and it occurs to me it is worth looking into.

Senator NELSON. They are all to be steam vessels, none of them sailing vessels?

Mr. PAGE. All steamers, full power.

Senator NELSON. You are familiar with the conditions on the coast. Has the building program of these wooden ships, for instance, been retarded by the lack of getting a supply of lumber promptly?

Mr. PAGE. It has.

Senator NELSON. An what has that arisen from—from strikes in the lumber camps?

Mr. PAGE. Trouble in the camps.

Senator NELSON. Among the men getting out the timber?

Mr. PAGE. Trouble, I believe, fostered by the I. W. W., there was trouble over the 8-hour day, but all fostered by the I. W. W.'s very largely.

Senator NELSON. They have steadied up?

Mr. PAGE. I think so.

Senator NELSON. Are you able to go into details and tell us how much it has been delayed—how many days?

Mr. PAGE. No, I am not, Senator, intimately acquainted with that.

Senator NELSON. Has there been any delay in consequence of the lack of getting material in the building of steel ships?

Mr. PAGE. Yes, there has.

Senator NELSON. Have you been able to get that promptly?

Mr. PAGE. There has been some delay; certain yards, for instance, have received an ample supply of shapes and no plates. I do not know whether you appreciate the distinction. In the building of a steel ship, the shape corresponds to the scantling that goes into your house, and the plate is like the plaster on the wall, the covering. For instance, if you have the scantling and not the covering you can not complete your house. That has been mostly the condition of the yards.

Senator NELSON. Let me ask you this, Mr. Page: Is there on the Pacific Coast, taking the line of coast we have been over, any rolling mills or steel mills where they make these plates, or do those all come from the East?

Mr. PAGE. Yes.

Senator NELSON. Most of the material for the steel ships has to be shipped from the East?

Mr. PAGE. Most of it. The great bulk of it must come from the East, and there are some delays due to congestion of traffic.

Senator NELSON. And that has been hampered not only by not getting it from the mills, but also by transportation facilities, has it not?

Mr. PAGE. My best judgment would be that it was due to transportation difficulties rather than the difficulty of getting it at the mill, because I heard that builders who were embarrassed in that way were advised that their shipments had left the mill but they had not received them.

Senator NELSON. I think you are right about that.

Senator JOHNSON. Mr. Page, Senator McCumber wishes to inquire whether you could use the lumber immediately it was cut; that is whether it had to be seasoned before it could be used in the construction of wooden ships?

Mr. PAGE. On the Northwest Coast, for many years they have been building wooden ships with timber that has come right out of the log. At several yards I know of they have their own mills, and they pull the log right out of the water, cut the timbers out and in the course of two or three days they go into the ships.

Senator NELSON. Excuse me, Senator Johnson?

Senator JOHNSON. Go ahead.

Senator NELSON. Do they not have some system by which they dry the lumber and cure it? I think I have seen something about that method, by which they put it through a curing process in two or three days by heat.

Mr. PAGE. I do not know whether there is. I would like to have it understood that I do not speak of exact knowledge as a shipbuilder. It is only general business observation upon which I base my remarks.

Senator NELSON. I noticed something of that kind in the newspapers.

Mr. PAGE. I have seen that recently. I might add that that was one of the reasons why some people located in the southern part of California to build ships notwithstanding there was no timber there.

The timber was sent down to Southern California—and in the price of the ships I believe the Government is allowing the freight, figuring that because of the climatic conditions it will get a ship in which the timber is so much better cured that it is going to be worth while.

Senator JONES. Do they lay the timber out while drying it?

Mr. PAGE. Yes.

Senator JONES. How long do they calculate on having it exposed to the California climate?

Mr. PAGE. I can not say. Several weeks, from what I was told. This is at Los Angeles.

Senator HARDING. Is there any kiln process of curing?

Mr. PAGE. I do not know. I have seen it in the papers. Of course, there is a kiln process of drying lumber. There is a great deal of lumber that is put on the market as kiln dried lumber.

Senator BANKHEAD. That only applies to boards?

Mr. PAGE. That only applies to boards and small sizes.

Senator BANKHEAD. You could not dry in that way one of these large pieces 28 by 30?

Mr. PAGE. Not in a kiln; no. But some of it is air-dried.

Senator JOHNSON. Very few days in the California climate will cure anything. [Laughter.]

Senator JONES. It will veneer it, anyway.

Mr. PAGE. I believe that is true.

Senator BANKHEAD. Mr. Page, when you launch one of these ships, what time is required to fit it up with machinery so it will be ready for the sea?

Mr. PAGE. I would say, if there is no delay in receiving the engines and boilers, if things move along in normal fashion, that from 30 to 60 days is the normal time for fitting up.

Senator BANKHEAD. What is your experience as to the delay? Are you able to get materials promptly for fitting out these ships with engines, boilers, etc.?

Mr. PAGE. I could not say as to that. I have not had any experience upon which to base an answer.

Senator BANKHEAD. It is pretty important to know.

Mr. PAGE. I think it is largely a matter of organization. The Skinner & Eddy people turn out a ship in 30 days, I imagine, after she was launched. That first vessel was launched early in December, was it not, Senator Jones?

Senator JONES. No; November some time.

Mr. PAGE. Late in November?

Senator JONES. Yes.

Mr. PAGE. And she was to be ready for delivery late in December; that is about 30 days.

Senator BANKHEAD. That is about 30 days?

Mr. PAGE. She was to be delivered on the 29th. I do not know whether delivery was made on time or not.

Senator JONES. I understand she was pretty near ready to sail on the 29th.

Senator BANKHEAD. These mills in the East are very much engaged, and I did not know but what you might have experienced some pretty serious difficulty in getting machinery.

Mr. PAGE. Those yards that are dependent upon the East for their engines—turbine engines or water-tube boilers; yes. Some of the other yards, like Skinner & Eddy, are nothing more or less than assembling yards. The Union Iron Works, at San Francisco, or the Seattle Construction Co., at Seattle, are manufacturing plants; they manufacture boilers, winches, steering gears, and their engines.

Senator BANKHEAD. They have to get the raw material from the East?

Mr. PAGE. Yes; raw material. But the material ought to be way ahead of the work.

Senator NELSON. The other yards have to come East?

Mr. PAGE. To get turbines, and boilers at Seattle or Portland.

Senator HARDING. Would it expedite matters for the Emergency Corporation if you built hulls on the west coast and towed them through the Panama Canal to the east coast for fitting out?

Mr. PAGE. I do not think it is possible to get vessels towed around. Tow boats are impossible to get, and towing a hull of that kind is a serious matter; it is a serious risk.

Senator HARDING. You mean it has not been ballasted?

Mr. PAGE. Yes; towing a big vessel is always a rather serious risk. I am speaking more from the standpoint of the underwriters, who charge a good figure because it involves the risk of losing the vessel. Of course, you can load her so that she will get down in the water all right.

Senator HARDING. We built a dry dock and towed it to the Philippines?

Mr. PAGE. Yes, we did; but it was a great big job, and there was a lot of anxiety. I do not mean to be understood as saying vessels are not commonly towed, but I do not think it is the wise thing to do.

Senator HARDING. I was not criticizing, but just trying to find out if it was practicable.

Mr. PAGE. I did not understand that you were criticizing, but I wanted to make myself clear.

Senator JONES. Mr. Page, I saw some reference some time ago in a paper to a proposal to establish a steel plant out on the Pacific coast, in the Northwest. Do you know anything about that, or was that contemplated by the board?

Mr. PAGE. Not for the board; not within my knowledge; I have no knowledge of it.

Senator JONES. You do not know anything about it?

Mr. PAGE. No, sir.

Senator HARDING. Have we not commandeered a lot of tugs and sent them abroad?

Mr. PAGE. Yes.

Senator HARDING. What do we do with them abroad?

Mr. PAGE. The French use them. I think it would be probably preferable if I stated the use they are put to in the executive session.

Senator HARDING. Very well.

Senator NELSON. How many yards are above the rapids on the Columbia?

Mr. PAGE. I did not get above the rapids.

Senator NELSON. Are there any yards above the rapids?

Mr. PAGE. Not to my knowledge; no.

Senator NELSON. There is a yard up in New Hampshire above a big railroad bridge. [Laughter.]

Mr. PAGE. Well, railroad bridges can be cured and rapids are pretty hard to get around.

The CHAIRMAN. I do not know but what this might be answered in executive session, but my inquiry is whether you know of any yards that are financed or where the chief interest has been in people who are supposed to be pro-German in their sentiments?

Mr. PAGE. No. I can answer that now, because I do not know of any such conditions.

Senator JONES. If there is anything of that kind it ought not to be made executive.

Senator NELSON. Have you read that article in the Post? Do you know anything about that matter?

Mr. PAGE. I do not know anything about it; no, Senator. Mr. Chairman, I have been reading over the testimony, and there is a point I would like to have an opportunity to clear up, if I might, with regard to these designs. I think there has been possibly a feeling that the shipbuilding program has been slowed up because a uniform design was not adopted. I can not see that anyone has cleared that up. I would like to say this: The adoption of a standard design is all very well for new yards, but for the old shipyards that have been working for years, which have evolved their own designs which are in step with their own machinery and their own organization, to impose a standard design of the Government on those yards would distinctly delay instead of faciltiating delivery.

The CHAIRMAN. I think you are right about that.

Mr. PAGE. It was not cleared up.

The CHAIRMAN. But the question is, Has there been any delay after builders have gone ahead, where they have been obliged to submit their plans and designs to the officers of the Emergency Fleet Corporation, who have examined them all, and approved or disapproved, or made changes?

Mr. PAGE. They have necessarily examined them and approved or disapproved, and made such changes as were necessary, but I think on designs that were put out by the builders themselves there has been a minimum of delay due to any changes. They are in such condition, based on shipyard practice and experience, that there was no occasion to make any changes. I have not heard of any changes there.

Senator BANKHEAD. The ships being built in the new yards are all standardized, are they not?

Mr. PAGE. Yes.

Senator BANKHEAD. If you build 9,000 and 10,000 ton ships, they all exactly the same?

Mr. PAGE. That is generally so. Particularly these fabricated ships are built on certain standards. There is a variation in plans, I believe, between certain yards, but if you have 150 ships coming out of the submarine boat yards they are all the same.

Senator NELSON. Are any of the wooden vessels standardized?

Mr. PAGE. Yes, all of them. The Ferris and the Hough type are standardized. If a yard had a contract for 10 hulls, either 10 Ferris hulls or 10 Hough hulls, the whole plant was put into step with that design.

Senator NELSON. Let me see if I understand you. You speak of "standardizing." Are your standards not only as to the form and method of construction but also as to the tonnage.

Mr. PAGE. Yes.

Senator NELSON. They are of the same tonnage?

Mr. PAGE. Oh, yes; they would be of the same tonnage.

Senator BANKHEAD. And machinery?

Mr. PAGE. Not necessarily the same machinery, no—in the same yard, yes. Well, to illustrate, you might have an 8,800 ton ship coming out of a yard in San Francisco which is equipped with reciprocating engines, and you would have one coming out of a yard in Seattle which is exactly the same hull and the same equipment that has a turbine engine—two different types of engines.

Senator BANKHEAD. I understand that.

The CHAIRMAN. In the case of these established yards bidding on ships, you say you let them proceed in their own way. Do they submit a plan or design with their bid, or do they just say "We will bid so much for a 3,500-ton ship," and proceed to build it in their own way until some time later when you see fit to examine it and pass on it?

Mr. PAGE. I am not personally familiar with the practice that has been actually followed, but speaking from the general practice—and there is no reason why the general practice should not have been followed in this case—a ship owner will contract with a builder to deliver him a ship of 10,000 tons dead weight, we will say, at so much a ton on the ship builder's own designs. The ship builder submits those designs, which the buyer approves, and then goes ahead.

The CHAIRMAN. I understand that.

Mr. PAGE. That would be the case here.

The CHAIRMAN. You said there were instances wherein they did furnish any design at all; you just let the builder proceed in his own right.

Mr. PAGE. The builder would submit his designs first, because the builder was already building ships of that type. He had an established type in his yard.

The CHAIRMAN. You would let him go ahead until you saw fit to pass on the design that he submitted, one way or the other?

Mr. PAGE. I would say that before letting him go ahead they would approve his design.

Senator JONES. And then you would have an inspector in charge to see that he complied with it?

Mr. PAGE. To see that he complied with the specifications.

Senator NELSON. Your inspectors that you have in the yards, Mr. Page, are they like the inspectors that a man has when he has a big building under construction?

Mr. PAGE. Exactly.

Senator JONES. He looks after the work as it progresses and sees that the right materials are used and the right methods are carried out?

Mr. PAGE. He sees that the specifications are carried out.

Senator NELSON. In detail?

Mr. PAGE. In detail; he examines the thing.

Senator NELSON. That is what your inspectors are doing?

Mr. PAGE. That is what the inspectors are for.

Senator JONES. As I understand, you do not have inspectors in each yard?

Mr. PAGE. There are inspectors in each yard. There might be a case of a yard with one small vessel that would not have an inspector in it; we might not have an inspector constantly there.

Senator JONES. I thought it very strange, that somebody testified here, representing the board, that they had not inspectors in every yard, but somebody out in a district.

Mr. PAGE. The district is in charge of a district officer, and the district officer has in each yard his inspectors. It is his business to have an inspector, in some cases more than one inspector, in a yard.

Senator JONES. I understand you say, then, that you have inspectors representing the Fleet Corporation in every yard where ships are building?

Mr. PAGE. That is my understanding, yes; that there are inspectors in every yard where there is any work going on.

Senator JONES. They report to the district officer?

Mr. PAGE. They report to the district officer.

Senator NELSON. And he reports here?

Mr. PAGE. To the management of the corporation.

Senator NELSON. That is the way I understood it the other day.

The CHAIRMAN. The committee will now proceed to the consideration of executive business.

(Thereupon, at 3.35 o'clock, the committee proceeded to executive business, and at 5.15 o'clock p. m. adjourned to meet at 2 o'clock p. m., on Wednesday, January 2, 1918.)

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